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## **Perception of poverty: Promoting social responsibility through multi-sensory integration**

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

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College of Imaging Arts & Sciences

Rochester Institute of Technology

01 March 2013



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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Quote**

*Design is the conscious effort to impose a meaningful order.*

— Victor Papanek

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Acknowledgements**

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Approvals for Master of Fine Arts Degree**

#### **Committee**

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Abstract**

Traditional graphic design and marketing rely heavily on visual forms of communication. With advertisements all around us, the constant visual bombardment has led to an over stimulated consumer, creating a challenge for designers to invent alternative ways to capture the audience's attention. Multi-sensory integration overcomes this challenge in my opinion, by integrating more than the sense of sight and is more effective and memorable, because it conveys the core message through multiple senses rather than one. The integration of additional senses within the field, particularly olfactory in my opinion, helps to enhance the overall communication and facilitate a more potent user experience.

According to National Bureau of Economic Research, the United States suffered a significant decline in economic activity resulting in the great recession, which lasted from December 2007 to June 2009. Following the recession, many United States citizens still faced unforeseen financial crisis, sudden loss of income and housing foreclosure. The impact of the recession continues today, causing suffering and severe crisis. As a result of this, many families and individuals continue to find themselves newly poor.

According to the National Alliance to End Homelessness, currently in the United States there are 643,067 people experiencing homelessness on any given night; roughly 22 of every 10,000 people are homeless. Of that number, 238,110 are people in families and 404,957 are individuals, 17% of the homeless population are considered chronically homeless and 12% of the homeless population are made up of veterans.

The objective of this thesis is to show how utilizing multi-sensory integration to raise awareness of poverty in the United States is effective and to explore the effects of the great recession by allowing observers to digitally experience homelessness. The intention is to give observers a new appreciation of life, inspire individuals to take action and stimulate change within their community.

#### **Key Words**

Computer Graphics Design  
Design  
Homeless  
Human-Centered Design  
Human Needs  
Installation  
Motion Graphics Design  
Multi-Sensory Integration  
New Poverty  
Olfaction  
Perception  
Poverty  
Recession  
Scent Integration  
Social Responsibility

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Thesis Documentation**

#### **Thesis Statement**

Perception of Poverty raises awareness of poverty in the United States, explores the effects of the great recession and enables observers to digitally experience homelessness through multi-sensory integration.

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### The Great Recession

According to National Bureau of Economic Research, the United States suffered a significant decline in economic activity resulting in the great recession, which lasted from December 2007 to June 2009. The recessionary period came after the extended economic growth and prosperity of the late twentieth century. Following what is known as the great recession, many United States citizens still faced unforeseen financial crisis, sudden loss of income and housing foreclosure. The impact of the recession continues today, causing suffering and severe crisis. As a result of the severe crisis, many families and individuals found themselves newly poor.

Primarily it is important to understand the causes and consequences of the economic recession of 2007. A variety of factors contributed to the great recession, which ultimately came crashing down toward the end of 2007. According to Hetzel the recession started with two shocks, a correction of an excess in the available housing and a sharp increase in energy prices, which taken together initiated the decline (204).

The initiation incited low interest rates and ignorance on behalf of regulatory agencies, which allowed Americans to borrow excessively for their home mortgages (Desai 1). During this period of excessive borrowing and readily available credit, the Federal government began raising rates which ultimately caused the booming housing bubble to deflate (Casey 3). Families and individuals who had taken advantage of these subprime mortgages now found themselves with unmanageable debt on declining assets.

A combination of declining assets, unmanageable debt, increased interest rates and rising monthly payments, ultimately sent Americans into default. According to Casey, "Millions of families lost their homes in mortgage foreclosures and unemployment reached disturbing heights (123)."

The rise of unemployment was the result of millions of people losing their jobs following the recession. According to the United States Bureau of Labor Statistics, the national unemployment rate before December 2007 was 4.7%, ultimately reaching 9.5% in June of 2009. Long-term unemployment was increasingly high, while cutbacks to many social programs in the United States left people unable to afford shelter, food, clothing and other necessities (Casey 123). The troubling unemployment rate in-conjunction with the rising home foreclosures caused workers to postpone retirement to contend with depleted finances. Families and individuals who were fortunate enough to keep their jobs and homes still faced harsh consequences such as salary cuts, wage freezes and consumer debt, while many people filed for bankruptcy.

Historically, employment growth tends to lag behind Growth Domestic Product or GDP recovery from the start of a recession (Desai 67). Certain economic indicators affect people who are or at risk of becoming homeless. According to the Homeless Research Institute, conditions worsened following the recession among three of the four economic factors examined, which included unemployment, housing cost, foreclosures and income (Berg, Roman, and Witte 4). Extended periods of unemployment, unmanageable housing cost and home foreclosures caused families and individuals to experience unforeseen homelessness.

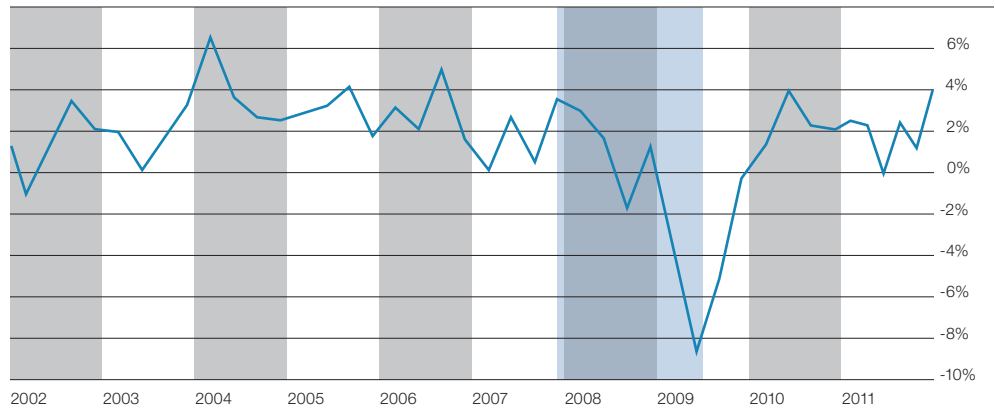
## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

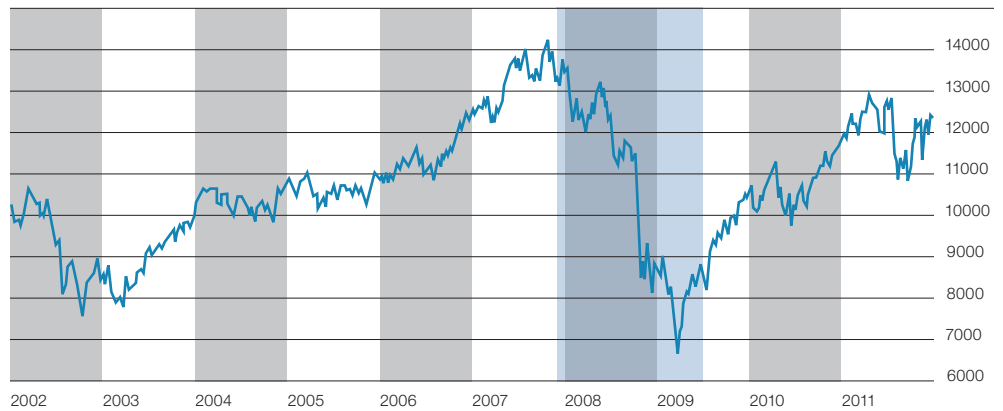
#### Thesis Documentation

#### The Great Recession

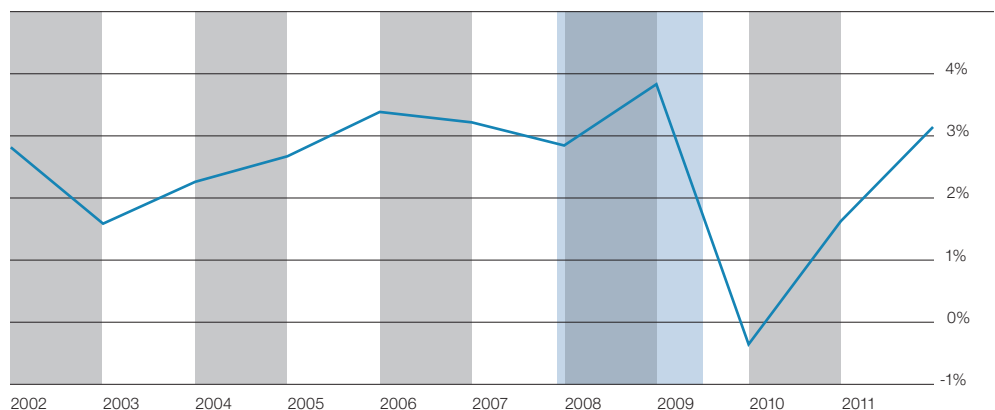
The graphs below illustrate a comparison of the Gross Domestic Product, Dow Jones Industrial Average, Inflation, Unemployment, Consumer Confidence and Poverty rates in the United States from 2002 to 2011. The great recession is shown in blue. Unemployment and Poverty rates significantly increased as the GDP, Dow Jones, Inflation and Consumer Confidence decreased.



**Graph:** United States GDP Growth. **Source:** United States Bureau of Economic Analysis.



**Graph:** Dow Jones Industrial Average. **Source:** Dow Jones.



**Graph:** United States Inflation. **Source:** World Bank.

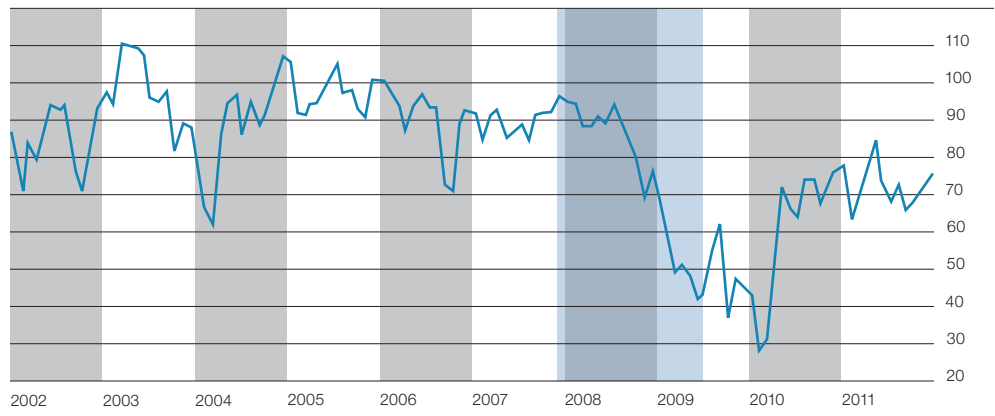


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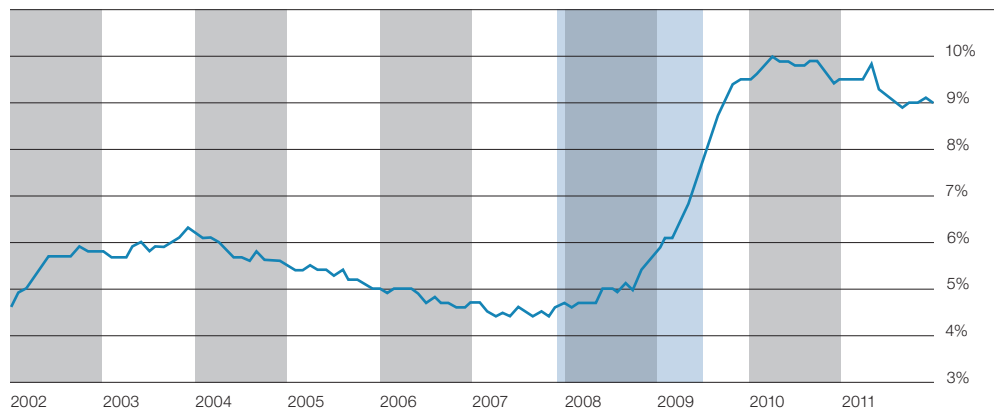
### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

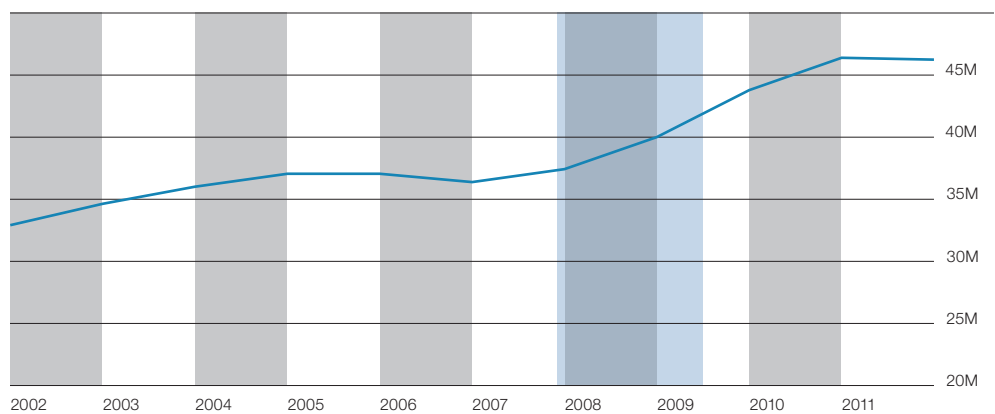
#### The Great Recession



**Graph:** United States Consumer Confidence. **Source:** The Conference Board.



**Graph:** United States Unemployment. **Source:** United States Bureau of Labor Statistics.



**Graph:** United States Poverty Rate. **Source:** United States Census Bureau.

The financial crisis has undoubtedly had economic, political and social effects that are significant and enduring. Many of these effects such as unemployment, homelessness and foreclosures are recognizable, while the remaining will be revealed in time. Many Americans affected by the great recession have experienced devastation in the form of homelessness.

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Poverty**

According to the National Alliance to End Homelessness, currently in the United States there are 643,067 people experiencing homelessness on any given night; roughly 22 of every 10,000 people are homeless. Of that number, 238,110 are people in families and 404,957 are individuals, 17% of the homeless population are considered chronically homeless and 12% of the homeless population are made up of veterans.

Homelessness is defined as an individual or family who lacks a fixed, regular and adequate nighttime residence. While homelessness affects people of any age, gender, ethnicity or race, there are many groups with increased risk. The National Alliance to End Homelessness identifies four specific types of homelessness in the United States. The four groups consist of families, youths, veterans and the chronically homeless.

The family homeless population is defined as a family with children or unaccompanied youth who are unstably housed due to disability or multiple barriers to employment. Families become homeless as a result of an unforeseen financial crisis due to accident, death or medical emergency that inhibits them from being able to obtain and maintain housing. On any given night 238,110 people in families experience homelessness in the United States.

The youth homeless population is defined as unaccompanied youth under the age of 25, without a home, family support or other resources. Children become homeless as a result of family conflicts such as divorce, neglect or abuse. A majority of children experience short-term homelessness often returning home with family or friends, however approximately 50,000 children experience long-term homelessness, a period of sixty days or longer. Standard assistance programs, government agencies and common solutions are often not applicable to minors, creating unique challenges for their vulnerable group.

The veteran homeless population is defined as veterans who served in several different conflicts, ranging from World War II to more recent conflicts. Veterans become homeless as a result of war related disabilities such as post-traumatic stress, physical trauma and mental anxiety. Readjusting to civilian life proves difficult for many veterans and may cause self-destructive behaviors, abuse and violence.

The chronically homeless population is defined as individuals who have experienced either homelessness for a period of a year or longer, at least four episodes of homelessness in the last three years or have a disability. Chronic homelessness is often a result of repetitive long-term homelessness combined with physical and mental disabilities and often represents the public image of the homeless. However this notion is a common misconception since they account for an estimated 17% of the entire homeless population (NAEH).

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Poverty

People are considered homeless when they are unable to obtain and maintain housing. Historically, the major causes of homelessness have included alcoholism, famine, itinerant labor, pilgrimage, social upheaval and war (Hopper 76). Many of these traditional causes of homelessness are no longer relevant in modern society. Hopper describes three modern causes of homelessness as cyclical unemployment and job loss, recurring shortages of low-cost housing and sudden dislocation in government relief and institutional programs (76).

Homelessness goes beyond not having a permanent place to live. People with increased risk of homelessness are often doubled up, working poor, discharged from prison, aged out of child foster care and without health insurance. Many homeless may live in another person's home without a regular arrangement allowing them to stay permanently (Jencks 10).

Doubling up is defined as an individual or family living in a housing unit with extended family, friends, and other non-relatives due to economic hardship (Doubled Up in the United States 1). The doubled up population is economically vulnerable and at risk for homelessness because majority of doubled up people are living at or below the poverty line. The United States had an increase in the doubled up population by approximately 50% from 2005 to 2010 (Berg, Roman, and Witte 7).

Working poor are individuals who work at least 27 weeks per year while still falling at or below the poverty line (Working Poor People in the United States 1). Low income, extended unemployment, underemployment and involuntary part-time employment are all economic factors for the working poor. In general, America may believe that work works, however for many it does not. Concerning the working poor, Shieler states "The man who washes cars does not own one. The clerk who files cancelled checks at the bank has \$2.02 in her own account. The woman who copyedits medical textbooks has not been to a dentist in a decade" (3).

The United States has one of the highest poverty rates among developed nations. For many unfortunate Americans life has become a daily struggle. Fortunately some people have utilized their talents and resources to help cease poverty, which may be the key to America's prosperity.

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Social Design

Traditionally, graphic designers have been associated with print and digital based work, often finding jobs at large corporations and advertising firms. However some pioneering designers from varied disciplines are utilizing their talents and resources to actively raise awareness on complex social issues, inspire individuals to take action and effect change in disadvantaged communities. The field of social design is often known as “design for the greater good,” “design for social change,” “socially responsible design,” and “human-centered design.”

An inspiring example of socially responsible design is Verein NeunerHAUS created by Robert Wohlgemuth, Florian Nussbaumer, Phil Hewson and Robert Staudinger at Euro RSCG in Vienna, Austria (Top et al. 168). The NeunerHAUS campaign was designed to raise awareness of homelessness. NeunerHAUS is a social organization that provides homeless with dignified housing, medical care and assistance.

The NeunerHAUS campaign was a series of print ads. The print ads featured realistic photography of urban environments. Beneath the photographs dark tonality and grunge textures, was a homeless person. The homeless were intentionally photographed to blend with their environments. Each print ad stated “Get people from the street before they become a part of it.”

Another inspiring example of socially responsible design is Street Reach created by Jeff Thompson at T2H Advertising in Myrtle Beach, South Carolina (Top et al. 160). The Street Reach campaign was designed to build awareness of homelessness and increase donations for Street Reach Mission. Street Reach Mission is a nonprofit organization with a ninety-bed facility, which provides emergency shelter and supportive services in the Myrtle Beach area (Top et al. 160).

The Street Reach campaign featured billboards, print ads and a website. The campaign utilized photography of families and individuals, each experiencing both homelessness and prosperity in the same photograph. A compelling question stated “If it were you, would you help?”

As a designer I personally understand the importance of utilizing design to actively raise awareness on complex social issues, inspire individuals to take action and effect change in disadvantaged communities.

For designers interested in exploring new methods of design that can be utilized to promote social change, two resources from human-centered design firm IDEO are particularly useful. IDEO’s Human-Centered Design Toolkit and Design for Social Impact: A How-To Guide (Shea 9). These comprehensive resources provide designers with a process and set of methods on how design can play a larger role in the social sectors.

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Design Clutter**

Graphic design and marketing have relied heavily on visuals as a form of communication. The over reliance on visuals in communication has led to an over stimulated market, resulting in an increased challenge for designers to capture a viewer's attention. The over stimulated market is further saturated by marketplace clutter.

Marketplace clutter consists of five-forms including product (generates excessive products or services), feature (generates excessive features in each product), advertising (generates excessive media messages), message (generates excessive elements per message) and media clutter (generates excessive competing channels) (Neumeier, "Zag" 7).

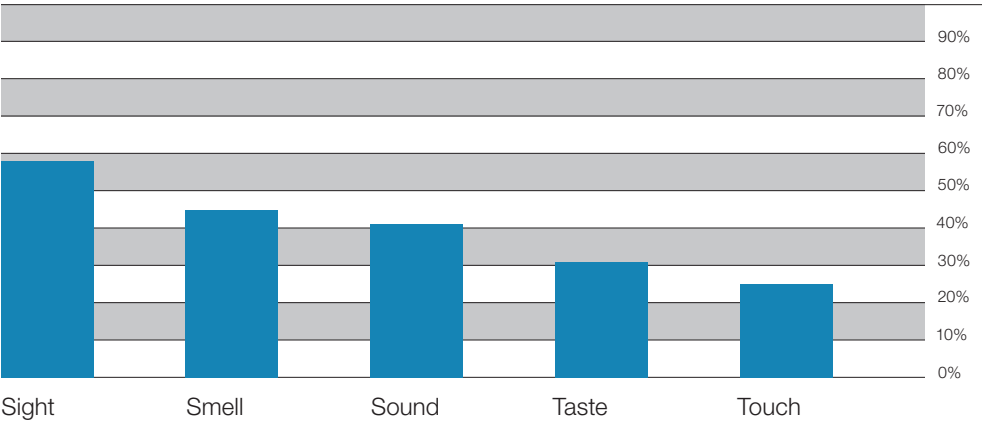
The average human is exposed to a reported 3,000 marketing messages per day, however the number of messages a human can absorb, according to the American Association of Advertising Agencies is less than 100. Naturally the human mind deals with clutter by simply blocking it. The human mind acts as a filter that protects itself from the immense amount of irrelevant information and marketplace clutter we are exposed to everyday (Neumeier, "Brand Gap" 34).

The purpose of design is to identify, inform, entertain, persuade and differentiate the message or product (Neumeier, "Brand Gap" 35). Differentiation has been increasingly important within the field of design, acting as a solution to clutter in the marketplace. Multi-sensory integration is a form of differentiation that overcomes the challenge of over stimulation by appealing to more than one sense. Multi-sensory integration within the context of communication is more effective and memorable in my opinion, because it complements the core message through multiple senses. The integration of additional senses within the field, particularly olfactory in my opinion, would help enhance the overall communication and user experience.

**Perception of Poverty:**  
Promoting Social Responsibility through Multi-Sensory Integration  
**Thesis Documentation**

**Multi-Sensory  
Integration**

After sight, as illustrated by the graph below, scent is the most significant of our five senses. Scent is unique because it is processed in the limbic system, which is area of the brain that is tied to memory, emotion and well-being. Visuals are more effective, emotional and memorable when combined with an additional sense such as smell. When appropriate visuals correlate with appropriate fragrances, viewers perceive a more pleasant and meaningful experience, however when inappropriate, viewers will literally forget the experience (Lindström, “Buyology” 145).



**Graph:** Sensory Importance. **Source:** Millward Brown and Martin Lindström.

Senses are incredibly important in interpreting the world around us and often play a critical role in behavior. When exposed to a familiar fragrance, observers will often be transported back in time, linking the experience to a particular recollection. According to Dr. Calvert “odor makes active many of the same brain regions as the sight of a product (Lindström, “Buyology” 145). For example, if you smell a cup of coffee, you are likely to imagine coffee in-conjunction with your favorite cafe’s logo.

For integration to be effective, the visuals, audio and fragrances must be congruous. The dynamic relationship between these congruous senses are tied to memory. Research to-date shows that we can perpetually create new scent-based memory associations with emotional experiences (Brumfield et al. 20).

I was walking down the streets of Midtown Manhattan recently and passed by a cafe emitting the smell of fresh baked goods. That scent created an immediate nostalgia, subconsciously transporting me to my childhood, baking cookies with my grandmother. Our brains retain large catalogs of the past the can instantaneously be recalled from a familiar scent (Brumfield et al. 29).

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Multi-Sensory Integration

Smell is an assertive sense that we cannot avoid. We may avert our eyes, cover our ears, restrain our hands and close our mouths, however smell is a part of the air we breathe. Smells may have a direct influence on our actions and have a greater effect on our behavior than generally thought (Vroon et al. 118).

Scent preferences vary across cultures and generations (Lindström, "Buyology" 147). Take the scent of wintergreen for example. In America wintergreen is perceived as pleasant, often associated with candy and gum, adversely in England wintergreen is perceived as unpleasant, often associated with analgesic medicine (Brumfield et al. 14).

According to C. Russell Brumfield, when we smell, we feel (6). The process of smelling is unadulterated by thought, translation or editing, however it does communicate a message (Brumfield et al. 7). When we smell something, we attach a great deal of meaning to the emotional, hedonic and episodic associations of smell (Vroon et al. 95).

Sound is another important aspect in how we experience brands and products. For example, General Electric created an auditory logo equivalent with its well-known three-chime sound (Lindström, "Buyology" 156). Kellogg's created a custom sound, hiring a Danish lab to design their signature "crunch." The well-known "pop" of a can of Pringles chips or a jar of Smucker's Jam has been largely engineered to make consumers associate the product with freshness (Lindström, "Buyology" 157).

Sound can also affect our safety. Classical music has been found to deter vandalism, loitering and violent crime in areas such as Canadian parks, 7-Eleven parking lots and subway stations (Lindström, "Buyology" 158). A study in 2006 showed that classical music played in the London Underground caused robberies to drop by 33%, staff assaults by 25% and train station vandalism by 37% (Lindström, "Buyology" 158).

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

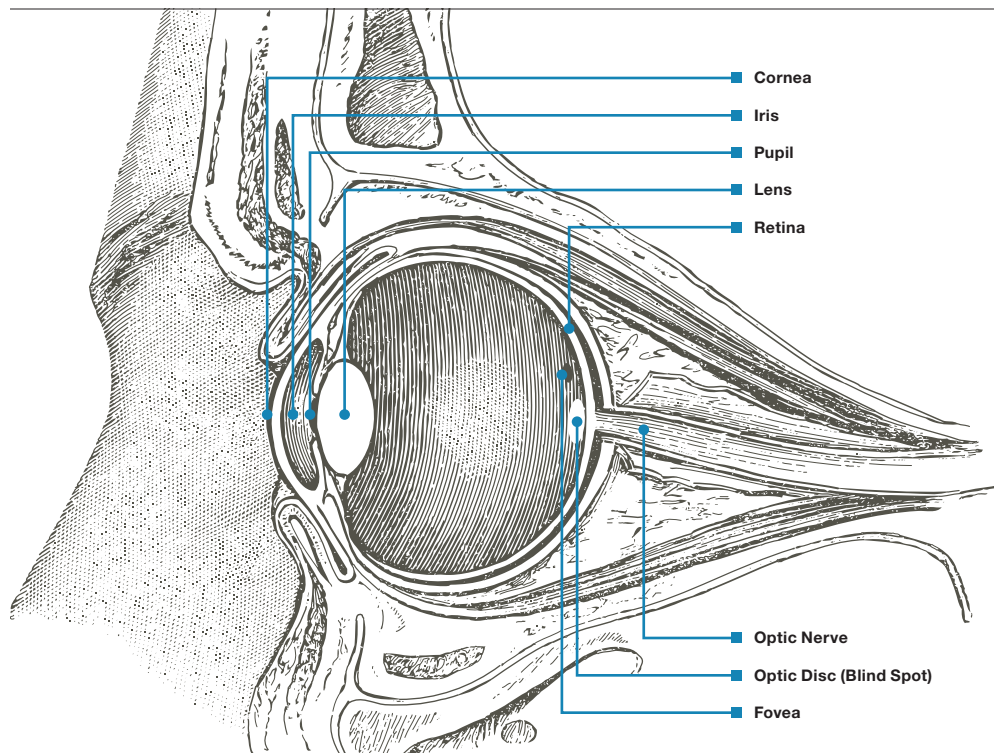
#### Thesis Documentation

#### Science of Perception

Merriam-Webster defines perception as the process of registering sensory stimuli as meaningful experiences. Humans perceive through their five senses, which are vision, hearing, olfaction, touch and taste. Senses are mechanisms by which information is received about external or internal environments. Stimuli received by nerves are converted into impulses that travel to specialized areas of the brain where they are analyzed.

Vision is the process, power, or function of seeing. To understand vision, you must understand light. Light is a portion of the electromagnetic spectrum visible to the human eye. Light is the basis for the sense of sight and necessary for the perception of color.

The ability to see light is a result of analyses that occur in the eye. The eye contains the conductive apparatus and the retina, and their position is controlled by six extra-ocular muscles that are stimulated by three cranial nerves (Møller 377).



**Illustration:** Anatomy of the human eye.

The conductive apparatus consists of the cornea, lens and pupil as depicted in the illustration above. The cornea is located in front of the lens. The lens projects an inverted picture on the retina and can change its focal length to focus near objects (Møller 377). The pupil acts like a camera aperture regulating the amount of light that reaches the retina.



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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Science of Perception**

The retina is a light-sensitive tissue located on the posterior chamber of the eye and contains the sensory cells and photoreceptors consisting of rod and cone cells. Rod cells are more sensitive to light and are responsible for recognizing dim light, while cone cells are responsible for color discrimination and detail (Møller 42). The retina also contains photopigments. A singular photopigment in rod cells called rhodopsin and three different photopigments in cone cells for each of the three principle colors red, green and blue (Møller 378).

The area of the retina where the central portion of an image is focused is called the fovea. The fovea is located next to the optic nerve, a collection of nerve fibers which conduct electrical impulses to the brain (Møller 380). The area where the optic nerve and blood vessels exit the retina is called the optic disk. The optic disk creates a blind spot on the retina because there are no rod or cone cells, however, each eye compensates for the blind spot in the other eye making the blind spot imperceptible.

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## Perception of Poverty:

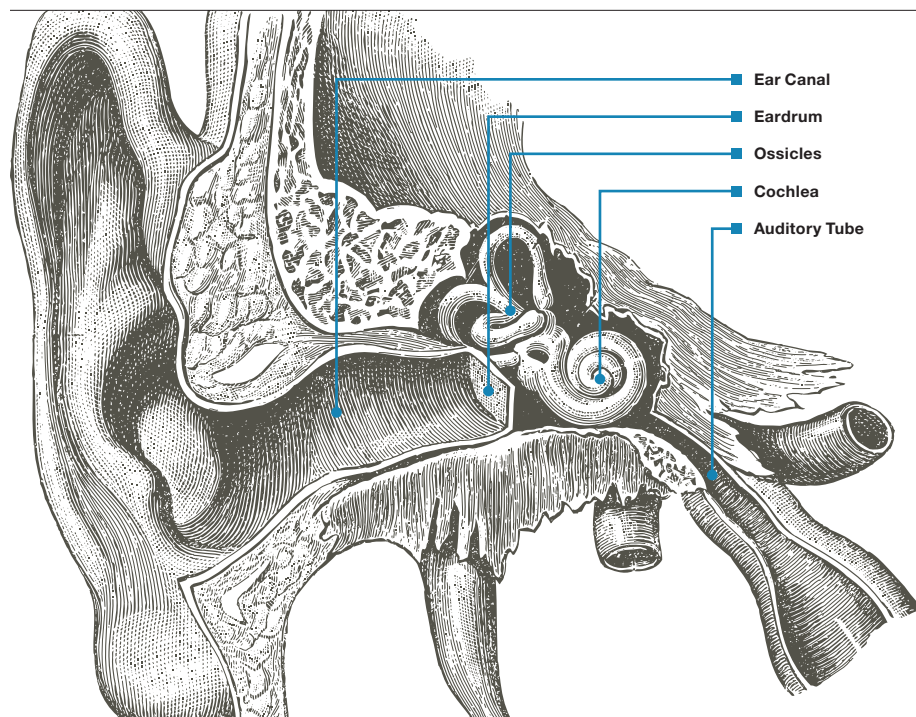
### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Science of Perception

Hearing is the process, function, or power of perceiving sound. To understand hearing, you must understand sound. Sound is a mechanical disturbance that propagates as a longitudinal wave through a solid, liquid, or gas. A sound wave is generated by a vibrating object. When something vibrates in the atmosphere, it moves air particles around it. The air particles in turn move air particles around them, carrying the pulse of the vibration through the air.

The ability to hear sound is a result of analyses that occur in the ear and the auditory nervous system (Møller 277). The ear consists of three parts, the outer ear, middle ear and cochlea.



**Illustration:** Anatomy of the human ear.

The outer ear consists of the pinna and the ear canal as depicted in the illustration above. The outer ear's curved structure helps determine the direction of the sound waves. The outer ear also serves to catch sound.

The middle ear consists of the tympanic membrane or eardrum and three small bones called ossicles. The ossicles consist of the malleus, incus and stapes. The eardrum is a thin, cone shaped piece of skin that is very rigid and sensitive. The eardrum acts like a diaphragm in a microphone, vibrating back and forth as a result of sound waves that travel into the ear canal.

The cochlea or inner ear is filled with fluid and consists of three compartments, the scala vestibuli, scala tympani and the scala media (Møller 278). The inner ear compartments are coiled in the shape of a snail shell. The inner ear takes physical vibrations caused by sound waves and translates them into electrical data the brain can recognize.

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## Perception of Poverty:

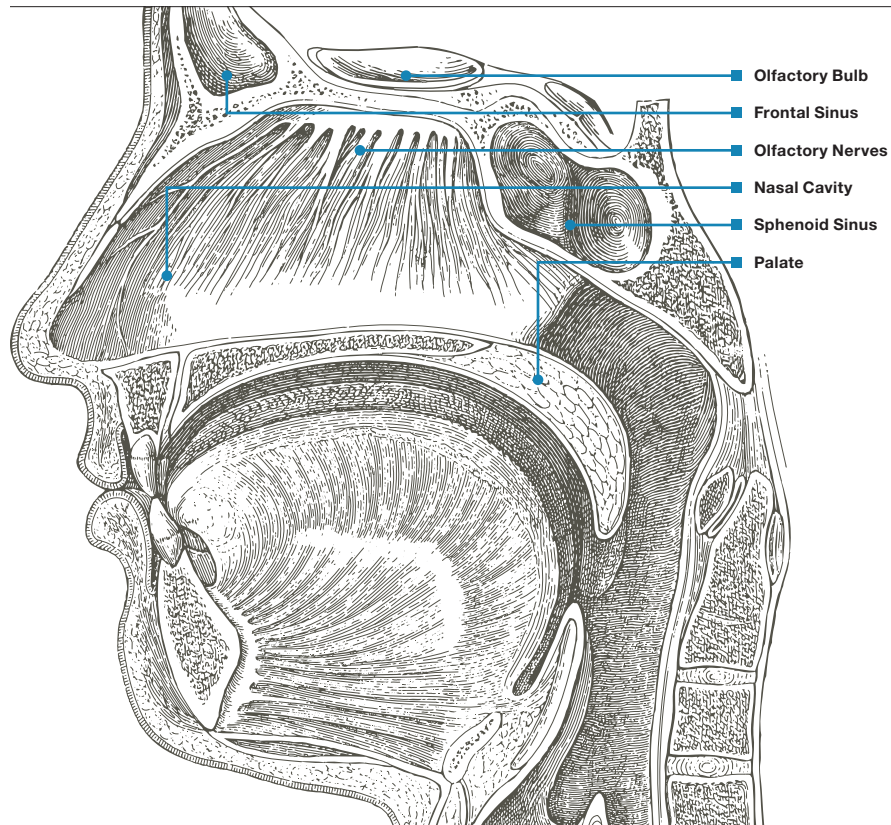
### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Science of Perception

Olfaction is the act or process of smelling. To understand olfaction, you must understand odor. Odor is a sensation resulting from adequate chemical stimulation of the olfactory organ. Odors are composed of volatilized chemical compounds that humans can perceive.

The ability to smell is a result of analyses that occur in the nose and the olfactory nervous system. The nose contains olfactory receptor cells that detect smell.



**Illustration:** Anatomy of the human nose.

Airborne molecules travel through the nostrils and reach the olfactory epithelium (Møller 432). Mucus secreted by the olfactory gland coats the epithelium and assists in dissolving the odors. Olfactory receptor cells are stimulated by the odor molecules sending electrical impulses to the olfactory bulb as depicted in the illustration above. The olfactory bulb has direct connection to the brain, which interprets patterns in electrical activity as specific odors (Møller 442).

The olfactory bulb is also part of the limbic system. The limbic system includes the amygdala and hippocampus, structures vital to our memory, emotion and behavior (Møller 156). Scent is unique in that it is processed in the limbic system, which is area of the brain that is tied to memory, emotion and behavior.



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Volunteer Work & Community Service

Volunteering provided the opportunity to learn more about poverty in the local community.

I gained a unique perspective while working in soup kitchens at Saint Joseph's House of Hospitality in Rochester, NY and Saint Luke's Mission of Mercy in Buffalo, NY.

The Social Welfare Action Alliance's Reality Tour was another informative experience. The reality tour examined the dichotomy of the impoverished inner city and affluent suburban community. Major issues such as living conditions, income inequality and educational disparity were discussed and experienced. Below are several photographs taken during the tour that show the Rochester Subway. The subway was abandoned due to declining ridership and limited resources and now acts as a home for a considerable portion of the homeless population.



**Photographs:** Social Welfare Action Alliance's Reality Tour.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Logo

The objective of this thesis is to utilize multi-sensory integration to raise awareness of poverty in the United States, explore the effects of the great recession and allow observers to digitally experience homelessness. The intention is to give observers a new appreciation of life, inspire individuals to take action and effect change in their community.

The initial step was to develop a logo for the Perception of Poverty brand. Establishing a compelling brand is essential for effective communication. The simple but functional Perception of Poverty logo was designed to be consistently utilized throughout the campaign. Helvetica Neue was selected for the logo, because it is a functional and neutral San Serif typeface.

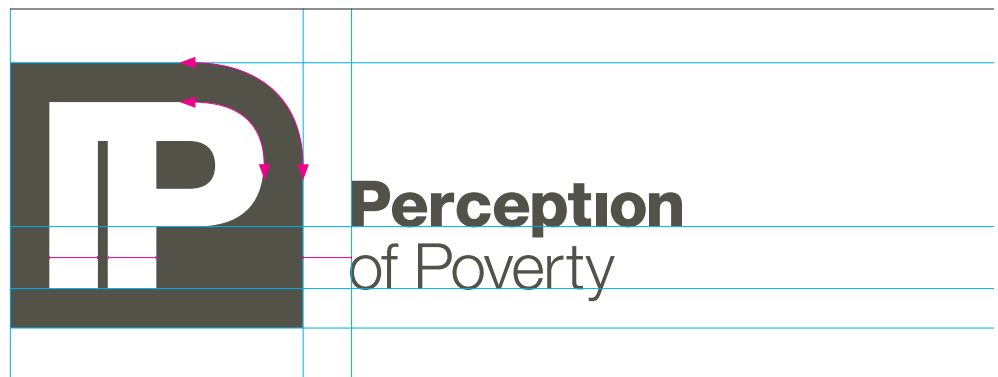
Careful attention was placed in consistent spacing, strong vertical and horizontal thresholds and alignments while developing the logo as depicted below. The space between the logo's name and icon was determined by the width of the "P" letterform. The logo's type was baselined with the bottom of the icon. The rounded corner radius of the icon match the bowl radius of the "P" letterform. The dots from the letter "i" were removed, to further simplify the letterforms. The customized letter "i" was also utilized throughout the campaign.

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**Logo:** Perception of Poverty design.



**Logo:** Perception of Poverty alignment.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Logo

During the initial development of the logo, it proved challenging to create the “PP” icon. The original designs that utilized a straight line before the letter “P” read as an “IP” rather than the intended “PP.” Duplicating the letter “P” and overlapping it caused the icon to read as “FP.” Both challenges were solved by connecting only the top portion of the letters as depicted below.

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**Logo:** Perception of Poverty logo development, first version.

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**Logo:** Perception of Poverty logo development, second version.

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**Logo:** Perception of Poverty logo development, final version.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration  
Thesis Documentation

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### Poster Series

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**Poster Series:** Poster design 1.

The next step was the development of the Perception of Poverty poster series. The objective was to create strategically positioned posters that utilized confrontational messaging and compelling statistics to raise awareness of homelessness. The poster content and message correlated with their environment.



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## Perception of Poverty:

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#### Poster Series



**Poster Series:** Poster alignment.

The poster series utilized Helvetica Neue Light and Bold fonts to maintain consistency with the logo. Careful attention was placed in consistent spacing, strong vertical and horizontal thresholds and alignments while developing the posters as depicted above. A grid creates an overall unified and balanced composition and was utilized for the poster series, creating proportional vertical and horizontal divisions in the layout. The logo, quick response code, typography and photography all followed the grid.



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## Perception of Poverty:

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### Poster Series

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**Poster Series:** Poster design 2.

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## Perception of Poverty:

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### Poster Series

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**Poster Series:** Poster design 3.

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#### Poster Series

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**Poster Series:** Poster design 4.



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### **Poster Series**

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**Poster Series:** Poster design 5.

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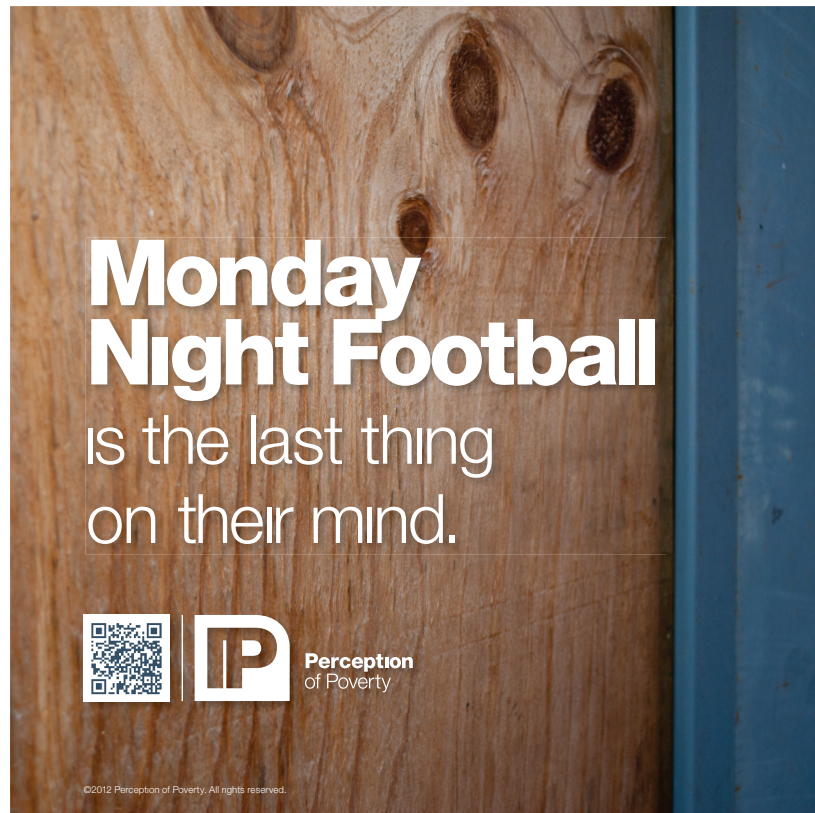
## **Perception of Poverty:**

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### **Poster Series**

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**Poster Series:** Poster design 6.

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

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#### **Poster Series**

The posters were enhanced by the inclusion of quick response codes. The quick response codes contained the URL information which enabled smart phones and other digital devices to quickly link to the Perception of Poverty website.

The photography for the posters was captured from an urban alley in downtown Rochester, New York. The photographic textures were intentionally shot to be flat and two-dimensional, to symbolically create a visual wall. The textures act as a wall, confronting the viewer while exposing them to powerful messaging. Another design feature was the inclusion of a white border, which acted as a frame for the content. The posters frame size was determined by the width of the logo icon.

The poster's message was intended to be both compelling and confrontational. Each message relates to one of the three basic human needs of shelter, food and clothing. Actual statistics on homeless were gathered from the National Alliance to End Homelessness.

The first three posters of the series featured compelling statistics, such as "643,067 Americans experience poverty on any given night," "1 in 6 Americans do not have access to enough food," and "1 in 7 Americans do not have a choice in what they wear."

The last three posters of the series featured confrontational messaging based on human truths, such as "Monday Night Football is the last thing on their mind," "Venti Mocha Frappuccino is not part of their vocabulary," and "White after Labor Day is the least of their concern." Human truths are based on the human condition, universal and inescapable aspects that all humans share.

The poster's placement was equally important. Posters were strategically positioned in areas that correlated with their messaging. For example, as depicted in the pictures on the next page, shelter related posters were placed near housing, apartments and indoor facilities. Food related posters were placed near restaurants, cafes and on vending machines. Clothing related posters were placed near stores and Laundromats, and even areas on campus where people have time to stand and think were targeted. For example, elevators are often quiet environments with a high volume of traffic. Posters were strategically placed in elevators around campus to take advantage of the audience's brief moment of attention. Each poster was physically cut in two by the strong vertical threshold in the photographic texture so that it separated when the door opened. Both pieces were adhered to the inside of the elevator doors. The poster was then slowly revealed as it came together and the doors closed.



## Perception of Poverty:

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#### Poster Series



**Poster Placement:** Vending machine.



**Poster Placement:** Community message board.

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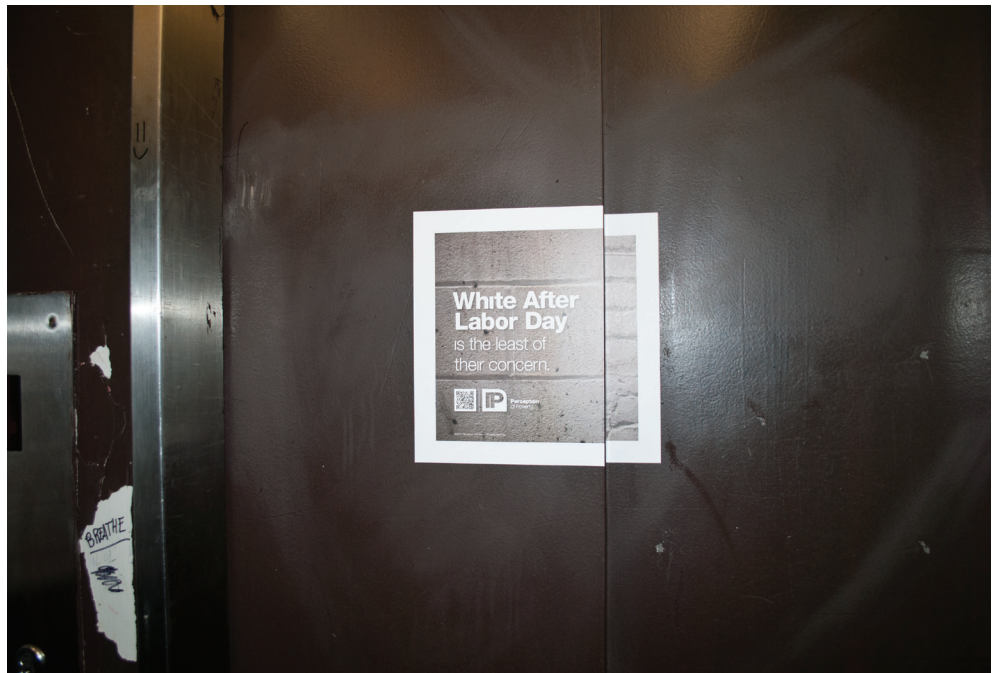
## Perception of Poverty:

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### Poster Series



**Poster Placement:** Campus elevator.



**Poster Placement:** Campus elevator.



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## Perception of Poverty:

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### Poster Series



**Poster Placement:** Java Wally's Cafe.



**Poster Placement:** Sport Zone Restaurant.

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## **Perception of Poverty:**

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#### **Process Art**

Process art is concerned with action, which can be defined as the actual artwork. Process art engages the audience to participate in the actual process. For example, canning (or collecting recyclable cans and bottles) is often the only “job” or income available for the homeless. The intention of the Process Art installation was to allow individuals to experience, if only for a moment the actual practice of canning.

The process art was accomplished by designing custom Perception of Poverty labels for standard plastic bottles. The label design maintained consistency by utilizing the same typeface and photographic textures utilized in the poster series. Again, careful attention was placed in consistent spacing, strong vertical and horizontal thresholds and alignments while developing the labels.

Much like the posters, the labels integrated quick response codes, allowing for quick connection to the Perception of Poverty website. Authentic Universal Product Codes or UPC were also designed and integrated into the label. The UPC enabled bottle scanning, allowing the bottles to be recycled and returned for a New York State deposit.

The process art installation was set in Rochester Institute of Technology’s Student Alumni Union. SAU is a high traffic area on campus that has centrally located restaurants, cafes, stores and a theater. The bottles were strategically positioned on the ground in high traffic areas in SAU. The intention of the ground position was to prompt the observer to pick up the bottle. In picking up the bottle, the user experiences the action of canning for that exact moment.

As the user holds the bottle they are exposed to a compelling message. The bottles’ message stated “This bottle is someone’s income.” The intention of the message was to engage the user in thought and elicit feelings of compassion.

Experimenting with varied bottle placements yielded distinctive results. For example, single bottles placed in an upright position received far less attention and even resulted in an isolated incident of a passerby intentionally kicking the bottle. Randomly placed bottles appeared to be regarded as trash and simply ignored. However organizing multiple bottles into groups yielded the best results. Increasing the number of bottles appeared to increase the observer’s interest.

The outcome of the process art had a success rate of approximately ten percent which was measured by the number of reactions and approximately two out of ten people would pick up the bottle. However only half the two people who picked up the bottle would engage in reading the bottle. The other half would simply recycle the bottle at a nearby recycling bin. The photographs that follow depict the bottle label design, assembly and the strategic placement of the process art installation.

# Perception of Poverty:

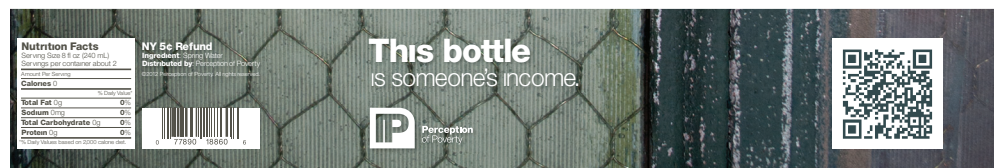
## Promoting Social Responsibility through Multi-Sensory Integration

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#### Process Art



Process Art: Label design 1.



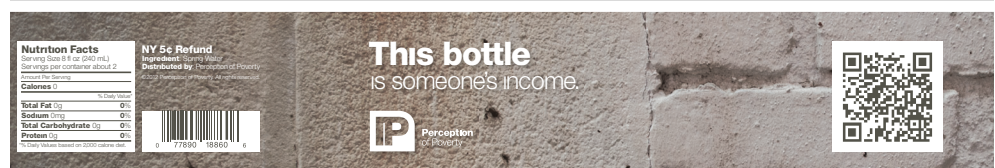
Process Art: Label design 2.



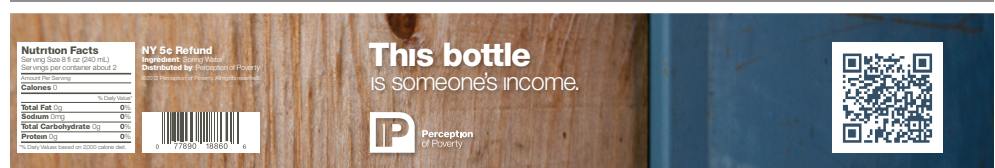
Process Art: Label design 3.



Process Art: Label design 4.



Process Art: Label design 5.



Process Art: Label design 6.



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## Perception of Poverty:

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#### Process Art



**Process Art:** Collection of empty plastic bottles.



**Process Art:** Assembling hand cut label on plastic bottle.

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## Perception of Poverty:

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#### Process Art



**Process Art:** Single bottle outside Student Alumni Union.



**Process Art:** Grouped bottles inside Student Alumni Union.



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## Perception of Poverty:

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#### Process Art



**Process Art:** User interacting with bottle, reading message.



**Process Art:** User interacting with bottle, experiencing the action of canning.

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## Perception of Poverty:

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#### Integrated Media

Integrated media was utilized throughout the Perception of Poverty campaign and was achieved by utilizing Quick Response Codes. QR codes are two-dimensional barcodes that store data such as a link, text, SMS text message, address, URL, geo-tag, e-mail, phone number and contact information. QR codes allow for quick connections between print and digital content.

There are several types of QR codes that include static, trackable and dynamic. Static QR codes cannot be edited and always direct to a single destination. Trackable QR codes generate analytics and statistics, providing data such as the number of scans by date, location, state, device manufacturer and device model. Dynamic QR codes can be edited anytime, allowing the code destination to be changed after the code has been printed.

A QR code containing the [perceptionofpoverty.org](http://perceptionofpoverty.org) URL was created and included on all print material. The QR code enabled smart phones and devices to easily access the Perception of Poverty website.

There are several factors to consider when implementing QR codes. The complexity of the code, quality of the printer and code size are all important to the accuracy of the code. The complexity of the code is determined by the length of the data. For complex codes make sure to utilize a high quality offset or digital printer. Low quality ink-jet printers may have difficulty properly producing complex codes which may not work when the consumer scans it. Size is another important factor to consider. While conducting multiple test scans, I determined that the QR code should never be printed smaller than three quarters of an inch. Lastly, be sure to always test your QR codes with a scanner before execution.



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**QR Code:** QR code size examples, recommended scanning size should be .75" or larger.

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

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#### Website

A simplistic and minimal website was created for Perception of Poverty utilizing HTML5, CSS and JavaScript. The website was optimized for both cross-platform and cross-browser functionality and provided a public presence amongst a potentially larger audience.

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**Website:** Perception of Poverty website on multiple device platforms.

The website design maintained consistency by utilizing the same typefaces and photographic textures utilized in the poster series and process art. Again, careful attention was placed in consistent spacing, strong vertical and horizontal thresholds and alignments while developing the website.

The primary website URL was setup as [perceptionofpoverty.org](http://perceptionofpoverty.org), with [perceptionofpoverty.com](http://perceptionofpoverty.com) setup as a parked domain rerouting users to the primary address. The website features a thesis overview, abstract, project photography and video, reference links and contact information. The optimized website enabled users to view the content on multiple devices such as computers, smart tablets and smart phones. The content is also cross compatible with Linux, Mac and Windows operating systems.



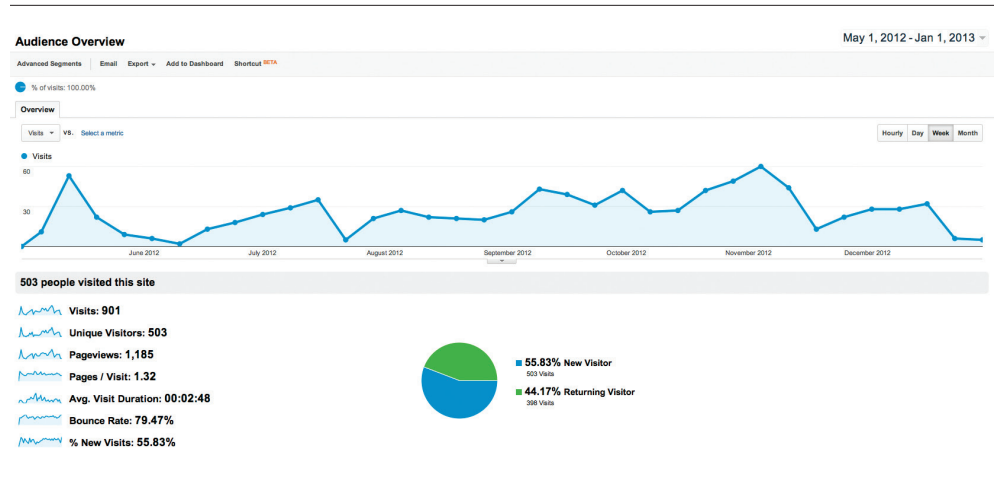
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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Thesis Documentation

#### Website

Google Analytics was implemented to gather detailed statistics about the Perception of Poverty website. Data such as daily visits, visit duration, traffic types, location, device and operating systems was collected. Analytics data has been collected since May 2012. On average the website has fifty visitors each day. Of that amount approximately fifty-three percent are new visitors and forty-seven percent are returning visitors.



**Website:** Google Analytics overview.

During the middle of May 2012 there was a spike in the amount visits to the website. The spike in visits correlated with the launch of the Perception of Poverty poster series and process art installations on campus concluding that the posters and process art had a direct effect on the amount of visits to the website.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

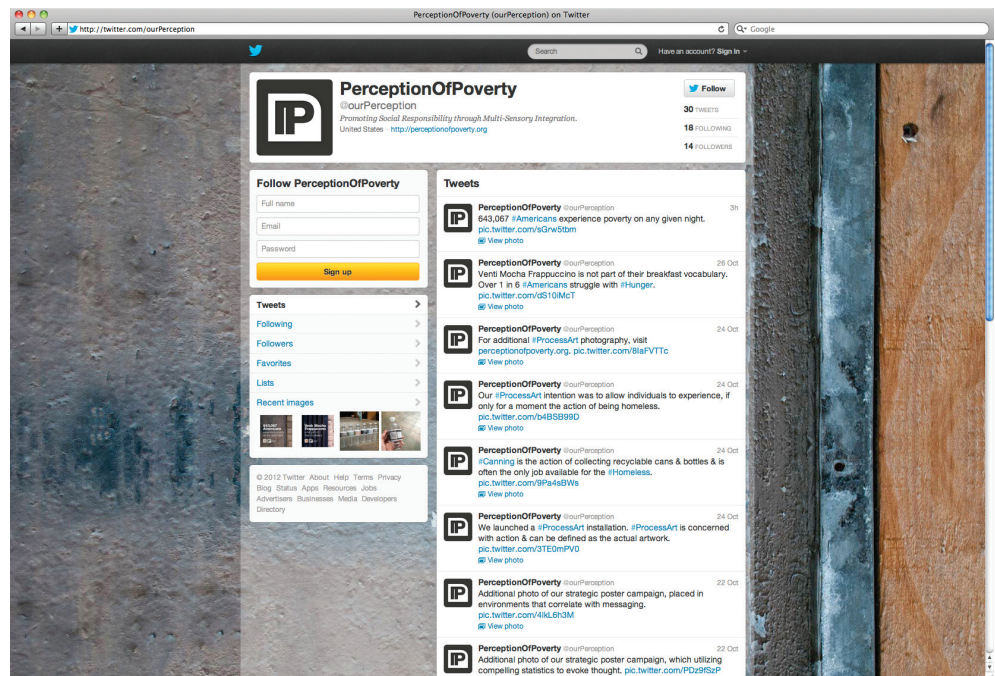
#### Thesis Documentation

#### Social Media

In conjunction with the interactive website, social media was also utilized for Perception of Poverty. Social media is a form of electronic communication that provides an interactive dialogue between organizations, communities and individuals. Online communities enable users to digitally share information, ideas, messages and content. In our modern society, social media has grown to become one of the most powerful sources of communication through widely popular platforms such as Facebook, Google+ and Twitter.

Twitter is a real-time information network that connects organizations, communities and individuals to the latest stories, ideas, opinions, news and interests. Merriam-Webster defines the word Twitter as “utter successive chirping noises” or “to talk in a chattering fashion.” The name appropriately defines this unique information network. At the heart of Twitter are compact bursts of information called Tweets. Each Tweet is a maximum of 140 characters long, allowing users to share information in real time.

Perception of Poverty implemented social media by utilizing Twitter. An account was created with the name @ourPerception. The intention of the account was to act as a forum for individuals, companies and non-profits to build relationships and exchange information and advice. Twitter provided the opportunity to interact with other social organizations, tweet poverty statistics and share thesis updates and photographs with followers.



**Social Media:** Perception of Poverty Twitter.

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## Perception of Poverty:

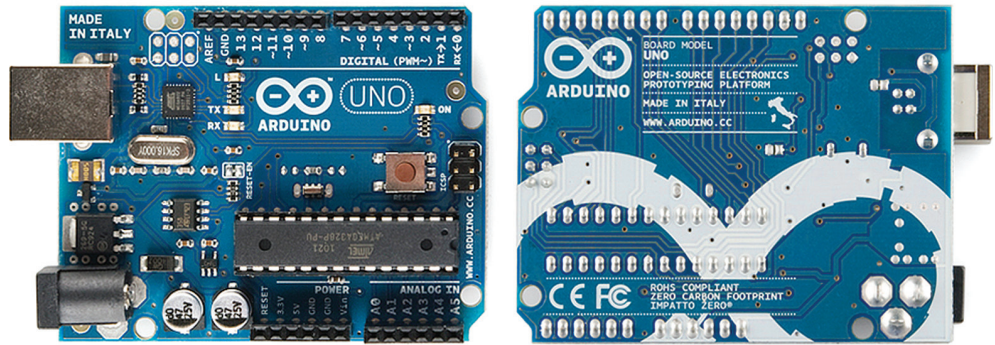
### Promoting Social Responsibility through Multi-Sensory Integration

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#### Scent Emission Device Prototype

Development of a custom scent emission device was created as a proof of concept. The device was created to emit a single fragrance while paired with motion graphics. An Arduino chip controlled the devices' intensity, timing and duration.

The initial prototype was created with an Arduino, depicted below. Arduino is an open-source electronics prototyping platform based on intuitive hardware and software. Arduino allows artists, designers and hobbyists to create rapid prototypes, interactive objects and environments. Arduino senses environments by receiving input from a variety of sensors. The sensors can affect the surrounding environment by controlling lights, motors and actuators.



**Photograph:** Arduino Uno.

The micro-controller on the board is programmed utilizing the Arduino programming language and Arduino development environment. The development environment is based on the Processing, an open source programming language and environment that creates images, animations and interactions. Arduino projects can stand alone or communicate with computer software such as Flash, Processing or MaxMSP.

# Perception of Poverty:

## Promoting Social Responsibility through Multi-Sensory Integration

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#### Scent Emission Device Prototype

An Arduino sketch was created to control a 5-Volt DC brushless fan. A sketch is an Arduino program that contains a unit of code that runs on an Arduino board once uploaded. The sketch for the device contained functions that enabled control of the fan's intensity, timing and duration.



```
Skrok_sketch_scentEmissionDevice | Arduino 1.0

/* Scent Emission Device
 * 02012 Daniel Skrok. All rights reserved.
 * http://tinyurl.com/d4wh7
 */

int motorPin = 9; // define the pin the fan is connected to (if you use pin 9,10,11 or 3 you can also control speed)

/*
 * setup() - this function runs once when you turn your Arduino on
 * We set the motors pin to be an output (turning the pin high (+5v) or low (ground) (-))
 * rather than an input (checking whether a pin is high or low)
 */
void setup()
{
  pinMode(motorPin, OUTPUT);
}

/*
 * loop() - this function will start after setup finishes and then repeat
 * we call a function called motorOnThenOff()
 */
void loop() // run over and over again
{
  motorOn();
  //motorOnThenOff();
  //motorOnThenOffWithSpeed();
  //motorAcceleration();
}

/*
 * motorOn() - turns fan on
 * note: must account for the 2.9 second fan slow down
 */
void motorOn()
{
  digitalWrite(motorPin, HIGH); // turns the fan on
}

/*
 * motorOnThenOff() - turns fan on then off
 * note: must account for the 2.9 second fan slow down
 */
void motorOnThenOff()
{
  int onTime = 2500; // the number of milliseconds for the fan to turn on
  int offTime = 1000; // the number of milliseconds for the fan to turn off

  digitalWrite(motorPin, HIGH); // turns the fan on
  delay(onTime); // delay
  digitalWrite(motorPin, LOW); // turns the fan off
  delay(offTime); // delay
}

/*
 * motorOnThenOffWithSpeed() - turns fan on then off but uses speed values as well
 * note: must account for the 2.9 second fan slow down
 */
void motorOnThenOffWithSpeed()
{
  int onSpeed = 255; // a number between 0 (stopped) and 255 (full speed)
  int onTime = 5000; // the number of milliseconds for the fan to turn on

  int offSpeed = 0; // a number between 0 (stopped) and 255 (full speed)
  int offTime = 10000; // the number of milliseconds for the fan to turn off

  analogWrite(motorPin, onSpeed); // turns the fan on
  delay(onTime); // delay
  analogWrite(motorPin, offSpeed); // turns the fan off
  delay(offTime); // delay
}

/*
 * motorAcceleration() - accelerates the fan to full speed then back down to zero
 * note: must account for the 2.9 second fan slow down
 */
```

**Code:** Arduino Processing sketch.



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## Perception of Poverty:

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#### Scent Emission Device Prototype

A Vornado Flippi™ Fan was utilized for the external housing of the scent emission device. The internal fan components were removed and recycled. The housing contained the Arduino Uno board, bread board, wiring, power adapter, DC brushless fan and fragrance. A convenient rocker switch was added, acting as a boolean to power the device on or off.



**Photograph:** Scent emission device prototype components.



**Photograph:** Assembly of scent emission device prototype components.

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## Perception of Poverty:

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#### Scent Emission Device Prototype



**Photograph:** Scent emission device prototype without fan cover.



**Photograph:** Scent emission device prototype.

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## Perception of Poverty:

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#### Scent Emission Device Prototype

The Perception of Poverty logo was placed at the center of the scent emission device upon completion. The final scent emission device was both functional and well designed. The device served to increase the observers' appetite with a delightful vanilla cupcake fragrance. The fragrance was emitted during a motion graphics animation about shocking hunger statistics in the United States.



**Photograph:** Scent emission device prototype synced with motion graphics.



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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Collaboration**

While conducting research about scent integration I discovered the Scent Marketing Institute. SMI is a global not-for-profit organization for marketers, fragrance houses and educators in the scent and sensory fields. SMI is also the oldest scent marketing organizations. SMI's mission is to support the scent marketing industry, provide education, research and serve as a unified voice of the scent community.

The Scent Marketing Institute is responsible for the annual ScentWorld Expo. ScentWorld is the preeminent and largest scent and sensory marketing conference in the world. The expo features intriguing lectures, presentations, market research, innovative technology and the latest scent trends. The expo was an enlightening experience, exposing me to like-minded individuals whom share the same passion for olfactory integration. The expo featured over 125 people from 20 different countries around the world.



**Photograph:** ScentWorld Expo 2011 in Miami Beach, Florida.



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## **Perception of Poverty:**

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#### **Thesis Documentation**

#### **Collaboration**

While attending the Scent Marketing Institute's ScentWorld Expo in Miami Beach, I met master perfumer Christophe Laudamiel and engineer Yvan Régeard. Our collaborative efforts helped create Perception of Poverty. I worked closely with both Christophe and Yvan to bring the innovative project to fruition. Christophe designed six custom fragrances based on the three basic human needs of shelter, food and clothing. Yvan developed custom scent emission equipment and software with the ability to sync with the motion graphics installation.

Christophe Laudamiel, a world-famous perfumer, osmocurator™ and trained chemist has created fragrances for famous houses such as Estée Lauder, Thierry Mugler, Michael Kors, Burberry, Tom Ford, Clinique, Ralph Lauren and Abercrombie & Fitch. Laudamiel is currently the Master Perfumer and President of DreamAir LLC. He received his Perfumer-Creator Degree from Procter and Gamble, holds a Master of Arts in chemistry, served as a teaching assistant at Harvard University and teaching fellow at Massachusetts Institute of Technology.

Yvan Régeard, a former engineer of France Telecom, entrepreneur and pioneer has created olfactory experiences for famous clients such as L'Oréal, Jean-Paul Gaultier, Lancôme, Cacharel and Colgate-Palmolive. Régeard is now Founder and President of Exhalia. He holds several patents in olfactory multimedia. Exhalia provides custom-made, intuitive solutions that allow smell to be integrated into multimedia sources such as internet, CD-ROM, interactive terminals, audiovisuals and games.

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## Perception of Poverty:

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#### Thesis Documentation

#### Fragrance Development

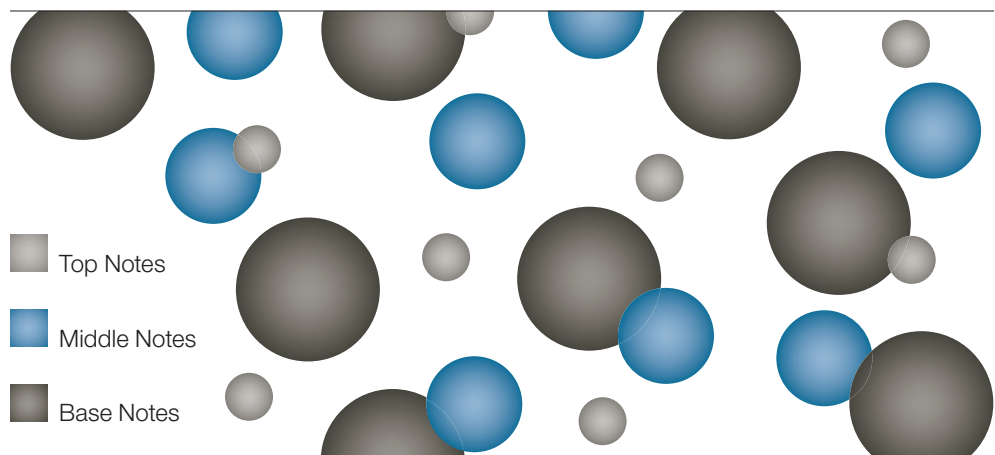
Artistic perfumery is an emerging field characterized by conceptually advanced and experimental fragrances that serve highly symbolic functions (Endrissat and Noppeney 4). Artistic perfumery utilizes visual representations to translate personal and emotional experiences into olfactory representations (Endrissat and Noppeney 4). The process of developing a campaign that utilizes artistic perfumery has three integral phases. The three phases consist of the development of the visual concept, the briefing situation and the development of the actual fragrance.

During the first phase or development of the visual concept, a perfume brief is developed to communicate the idea of the fragrance to the perfumer(s) and specify the general characteristics of the fragrance (Endrissat and Noppeney 12). In-conjunction with the creative brief, a visual mood board is developed to provide the perfumer(s) with a clear, well-structured visual representation of the fragrance.

During the second phase, or briefing situation, the fragrance brief and visual mood board are sent to the perfumer(s). During this collaborative phase, the team discusses and analyzes the projects scope, target audience and budget (Endrissat and Noppeney 21). Potential olfactory notes for the fragrance are also discussed. Below is an illustration of fragrance notes.

Fragrance notes are often described as a musical metaphor, fragrances are composed of three notes which are the harmonious chord of the fragrance. The notes are created carefully and unfold over time, with the immediate impression of the top notes leading to the deeper middle notes followed by the base notes which gradually appear at the final stage.

Top notes are perceived immediately, are small and light molecules, evaporate quickly and are very volatile. Middle notes emerge after the top notes dissipate, form the main body, are typically mellow and rounded and are known as heart notes. Base notes emerge after middle notes dissipate, are large and heavy molecules, evaporate slowly, form the main theme and are typically rich and deep.



**Illustration:** Fragrance notes.

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## Perception of Poverty:

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#### Fragrance Development

During the third phase, or development of the actual fragrance, the perfumer(s) find an appropriate olfactory representation of the visual concept (Endrissat and Noppeney 23). During this intensive phase the artistic perfumers determine materials, write notes, experiment with note combinations, perform technical checks, minor adjustments, smell blotters and modify formulas until the desired composition of the formula is found (Endrissat and Noppeney 24). Blotters refer to narrow paper strips utilized by perfumers to smell and test a fragrance.

Although artistic perfumers and designers come from different backgrounds, they collaborate well with one another. Communication is a crucial part of their successful collaboration. Each utilizes their own emotional experiences to understand the visual concept and ultimately create a tangible fragrance.

My initial challenge was to answer the question, what does poverty smell like? The preliminary thought of my peers and I was that it would be unpleasant. How would I capture the observers' attention and stay true to the realistic scent of poverty without driving them away? I decided to divert my focus away from the stereotypical scents associated with poverty and focus on the human condition, universal and inescapable aspects that all humans share. One definitive human truth, that all humans share are the three basic human needs of shelter, food and clothing. Focusing on these human needs, draws attention away from stereotypes and places emphasis on our own human dignity.

I worked closely with Christophe Laudamiel to develop six custom fragrances based on the three basic human needs of shelter, food and clothing. Each need featured two contrasting fragrances. Unlike many fragrances on the market today which are one dimensional, Christophes' fragrances are complex, dynamic and sophisticated.

Christophe and I started with a fragrance brief outlining the project objective, message and target audience. Being new to the fragrance industry, I was unaware of any limitations concerning fragrance development. I was elated to find out that my idea of integrating realistic fragrances would be possible.

Christophe worked with his dedicated team at DreamAir LLC to develop custom samples for each of the six fragrance oils. The samples were provided in small glass bottles along with blotters. Each bottle was appropriately labeled with the oil name, date and alcohol percentage as depicted in the photographs on the following pages. Pure oils are too strong for sampling and need to be diluted.

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## Perception of Poverty:

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#### Fragrance Development



**Photograph:** DreamAir LLC Air Sculpture® fragrance samples.



**Photograph:** DreamAir LLC Air Sculpture® *Blue Sky 101* and *Urbanracing 3*.



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## Perception of Poverty:

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#### Fragrance Development



**Photograph:** DreamAir LLC Air Sculpture® *Fresh Bread 4* and *Moldy Bread 13*.



**Photograph:** DreamAir LLC Air Sculpture® *Laundry Cleaner 1* and *Past 2*.

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## Perception of Poverty:

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#### Fragrance Development

For scent integration to be effective, the visuals, audio and fragrances must be congruous, in other words the need to match. The intention was to successfully develop realistic fragrances, allowing observers to experience the contrast of the three basic human needs of shelter, food and clothing.

The visual depiction of shelter was of a safe, suburban, indoor environment contrasted by a dangerous, urban, outdoor environment. The auditory sounds of shelter were quiet and serene, with a subtle hint of nature contrasted by loud, urban traffic, sirens and dense crowds. The olfactory components of shelter were fresh, clean and air notes contrasted by diesel, fumes, concrete and electricity notes.

The visual depiction of food was of fresh, baked, artisan bread contrasted by spoiled, stale, moldy bread. The auditory sounds of food were laughter and the company of family and friends contrasted by quiet and solitude. The olfactory components of food were fresh baked bread, dough and crust notes contrasted by spoiled bread, mold and acetone notes.

The visual depiction of clothing was of a selection of clean, laundered shirts contrasted by a single dirty, worn shirt. The auditory sounds of clothing were white noise contrasted by silence. The olfactory components of clothing were fabric, cotton and laundered linen notes contrasted by fabric, human body odor and sweat notes.

Fragrances are more than one-dimensional. For example, an urban city cannot be defined by a singular note such as concrete. Cities are much more complex. The city fragrance designed for Perception of Poverty contains a combination of notes such as diesel, fumes, concrete, grass, air and electricity. This unique combination of top, middle and base notes allow the city fragrance to unfold over time, evolving with each breathe.

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## Perception of Poverty:

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#### Scent Emission Equipment

Upon completion the final fragrance oils were sent to Yvan Régeard, president of Exhalia. Yvan and his diligent team converted the fragrance oils into premium polymer beads. The polymer beads were then stored in interchangeable scent cartridges for the SBi4 scent emission diffusers as depicted in the photograph below.

There are many options available for scent emission. However, there are a limited amount of devices that can emit time based fragrances with interactive content like the SBi4. Majority of the scent emission devices are developed for the retail industry. Device fragrances come in different forms such as oil, alcohol, ceramic and polymer.

The Exhalia SBi4 Scent Diffusers integrate scents with digital content such as interactive websites, videos and multimedia. The diffusers utilize intuitive software to control their intensity, timing and duration. A custom scent track or timeline syncs the scent emission with video when played in Windows Media Player. The diffusers are controlled wirelessly with a USB radio transmitter.



**Photograph:** Exhalia SBi4 Diffuser.

The Exhalia SBi4 Scent Diffusers utilize premium polymer beads stored in scent cartridges. The scent cartridges allow for convenient storage and quick setup. The premium polymer beads last for an entire year with regular use. Intense use, ten or more hours per day, last for approximately one to two months. Each cartridge required 5 grams of oil. To ensure quality the cartridges are recommended to be stored in polyethylene bags, not polypropylene, have limited exposure to sun light and kept at low temperatures. Polyethylene bags are inert, have a lower static charge, are more flexible and prohibit a greater amount of light than polypropylene.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Scent Emission Equipment



**Photograph:** Exhalia SBI4 Diffuser.



**Photograph:** Exhalia SBI4 Diffuser cartridges.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Scent Emission Equipment



**Photograph:** Exhalia SBI4 Diffuser *Fresh Bread 4* cartridge.



**Photograph:** Exhalia SBI4 Diffuser *Moldy Bread 13* cartridge.

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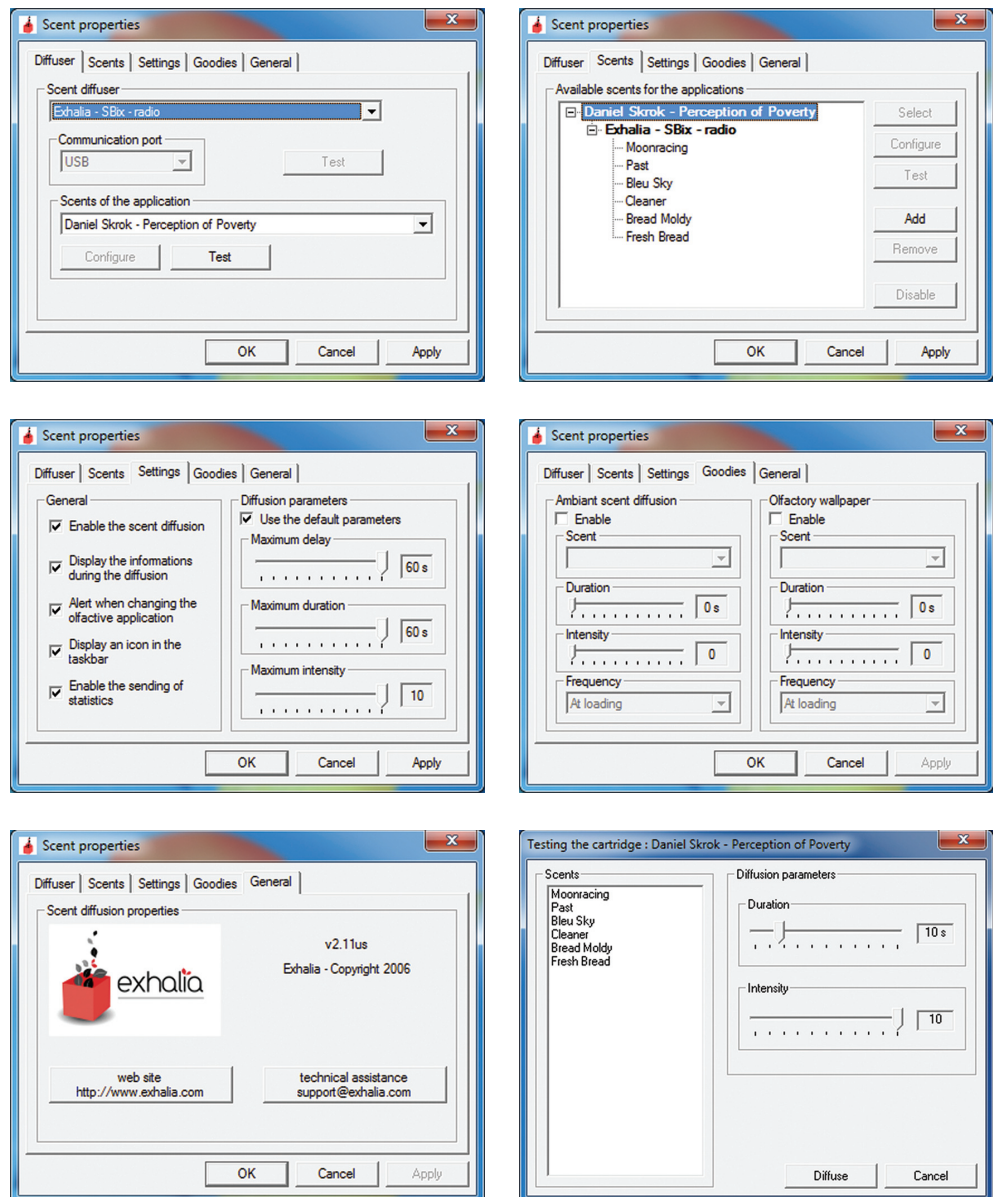
## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Scent Emission Equipment

The Exhalia SBI4 Scent Diffusers consists of the SBI4 unit, scent cartridges, USB radio transmitter, proprietary software, configuration file and scent track. Each diffuser is capable of controlling four scent cartridges based on intensity, timing and duration. The USB radio transmitter wirelessly connects the Exhalia software with the unit. The Exhalia software, depicted below, recognizes each scent cartridge based on the properties defined by the configuration file. The software enables manual control or automated control via the scent track.



**Screenshot:** Exhalia software.

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Scent Emission Equipment

The setup process starts with an initial installation of the Exhalia software on any Windows based computer. I decided to run Windows 7 on my MacBook Pro utilizing VmWare Fusion 5. Once Windows 7 is booted, simply plug in the USB radio transmitter into the MacBook Pro. A small red LED light will signal a proper connection. A prompt window appears, asking to run the USB transmitter on Windows or Mac Operating Systems, select Windows. Open the Exhalia software. Enable "SBix-radio" under the Scent Diffuser Property. Select the appropriate configuration file under the Scents of the Application property, in this case select "Daniel Skrok Perception of Poverty." Plug in the units, a small red LED light will signal a proper connection. Then test the scent diffusers by clicking the "Test" button under the Diffuser tab.

Upon successful completion of setup, the Exhalia SBi4 Scent Diffusers are capable of running via a scent track in Windows Media Player. The Exhalia software has a custom Windows Media Player plug-in that associates a selected file with the corresponding scent track. A scent track is essentially a scent timeline, enabling time based emission of the scent cartridges. The scent track provides the ability to pair scents with auditory sounds and visuals in animations, motion graphics and videos.

Today's design and animation industries utilize timelines to control, manipulate and pair visual and auditory assets. Although the technology is not quite there, one day our industry may very well be integrating olfactory assets into timeline based software such as Adobe® After Effects®, Apple Final Cut Pro or Autodesk® Maya®. I sincerely believe that future design and animation students will solve complex design problems and tell compelling stories through the integration of all five of our human senses.



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

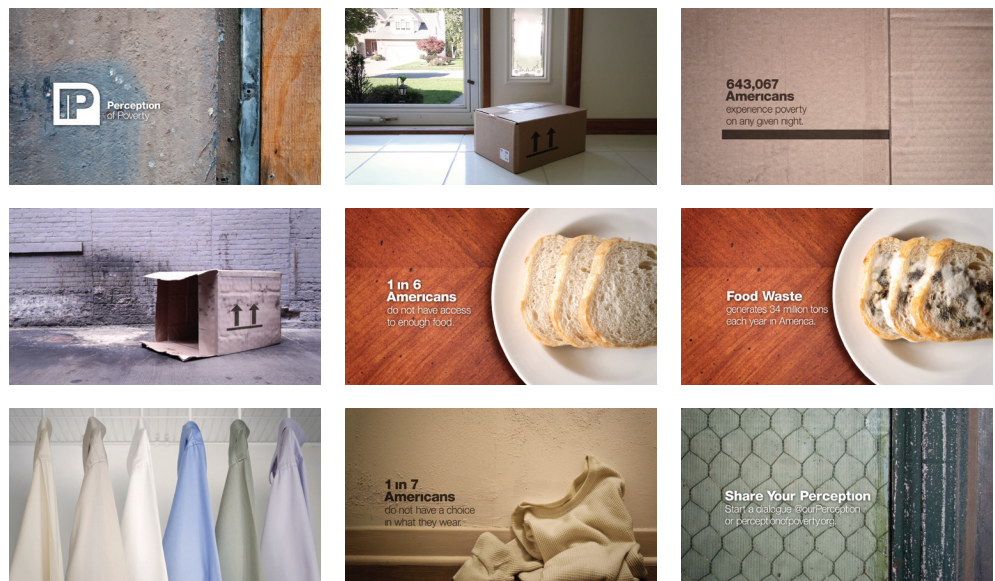
#### Thesis Documentation

#### Motion Graphics

Perception of Poverty utilizes multi-sensory integration of sight, sound and scent to raise awareness of poverty in the United States, explore the effects of the great recession by allowing observers to digitally experience homelessness. Observers experience the contrast of the three basic human needs of shelter, food and clothing. The intended outcome of Perception of Poverty is to give observers a new appreciation of life, inspire individuals to take action and promote change within their community.

The initial motion graphics started with paper and pencil. Detailed storyboards were sketched to outline the overall composition, message, visual style and transitions. Storyboards are a sequential series of sketches that depict important transitions or actions of a scene and are integral in providing a pre-visualization of the motion graphics.

The next phase upon completion of the storyboards was creating an animatic which is a preliminary version of the final motion graphics that assist in defining the visual style, motion and timing of the motion graphics. During the animatic stage, a list of assets and footage is gathered. Further developed animatics increase productivity by providing an accurate list of the necessary assets.



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**Storyboards:** Perception of Poverty.

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Motion Graphics

Gathering assets and footage is another integral part of the motion graphics process. Assets may include audio clips, video footage, photography, vector graphics, typography and 3D image sequences. Assets for Perception of Poverty included the vector logo, message typography, photographic textures, interior video footage, exterior video footage, custom built homeless box, wood table photography, fresh and spoiled bread photography, laundered shirts, worn shirt, sound foley's and theme song.

The theme song chosen for the motion graphics was "Redford for Yia-Yia & Pappou" by Sufjan Stevens. Sufjan Stevens is a musician and composer based out of Brooklyn, New York. The songs' emotional tone complimented the serious nature of the content and messaging. The songs' simplistic piano chords provided definitive audio hits or queues for the visual animations and transitions.



**Screenshot:** Adobe® After Effects® animation keyframe and audio waveform.

The opening sequence of the motion graphics served to tell the Perception of Poverty story. It required a simplification of the thesis abstract to provide the observer with a context of the content. The motion graphics messaging was typeset in Helvetica Neue Light and Bold fonts to maintain consistency with the entire campaign. Careful attention was placed in consistent composition, strong vertical and horizontal thresholds and alignments. A grid based design based on the rule of thirds was implemented.

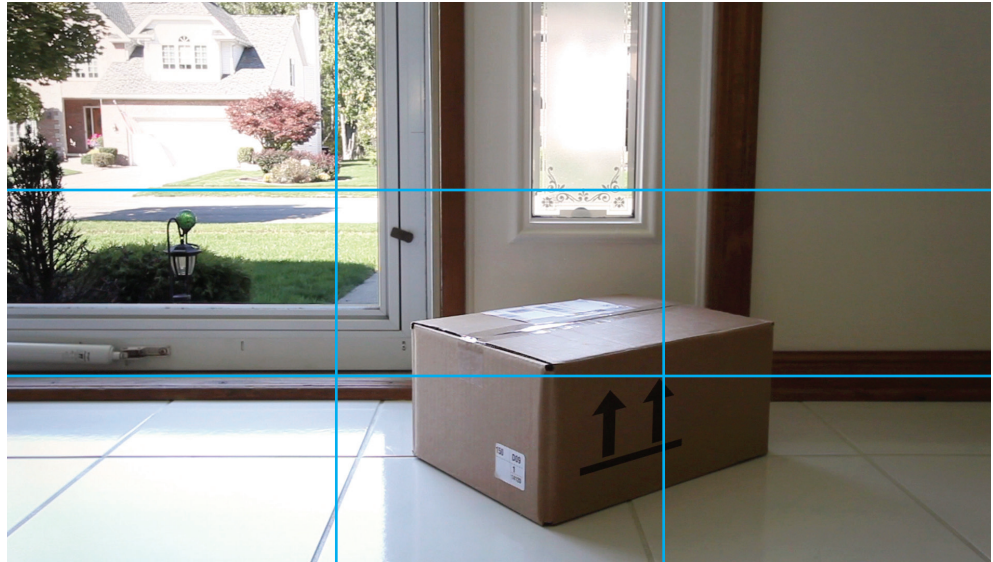
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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Documentation

#### Motion Graphics



**Example:** Rule of thirds grid of interior scene.

The rule of thirds is a compositional guideline that divides a composition into nine equal parts as depicted in the example above. Aligning important compositional elements on or around these guidelines is believed to create a stronger visual tension, energy, intrigue and appeal to the human eye.

There was a challenge with the photographic textures in the opening sequence. The composition and established hierarchy was strong, however the photographic textures were too static causing the animation to appear mundane. This challenge was remedied by breaking apart each background texture and overlapping the animation of each section.

The animated background sections originally entered the screen both horizontally and vertically. However the sections that entered vertically, unintentionally created an aggressive visual tension. This aggression was subdued by having the background sections enter and exit horizontally.

Scale was also utilized in the photographic textures to create a dynamic animation. However the initial scaling was distracting and caused the typography to become illegible. Parenting the typography to the background textures improved legibility and increased the visual intrigue. Another challenge was balancing the animation to be dynamic and appropriate. Due to the serious tone of the content, the motion needed to be appropriate and not excessively aggressive. The proper use of overlapping animation, staging and anticipation provided dynamic motion graphics, while maintaining the seriousness of homelessness.

The motion graphics were originally set to be one minute in duration. This time constraint caused the motion graphics to feel rushed. Overall the transitions were slowed down and the motion graphics were extended to four minutes in duration. The four minute timeframe provided the observer an appropriate amount of time to understand this new multi-sensory experience.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Shelter scene featuring an interior suburban home.

Following the opening sequence of the motion graphics the observer experiences the first basic human need of shelter. The initial visual depiction of shelter is of an interior upper middle class suburban home. The interior scene features an open door, which is symbolic of a safe environment. The open door also provides the observer with a glimpse of the sunny suburban neighborhood. A subtle summer breeze brings attention to a neighbor's American flag, providing a locational context. Another element of the interior scene is a small cardboard package. The package represents the luxury and convenience of delivered products and goods. Primary emphasis is placed on the package by positioning it in the lower thirds of the composition.

The auditory sounds of the interior scene are quiet, serene with a subtle hint of nature. The quiet serenity of the environment reinforce the safe tonality of the experience. The olfactory components of the interior scene combines fresh, clean air notes to create the idea of a freshly cleaned home.

A cardboard texture, consistent with the cardboard package acts as a transition into the exterior scene. The cardboard texture reveals a statistic that states "643,067 Americans experience poverty on any given night." The cardboard texture animates offscreen, showing the exterior urban alley.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Shelter scene featuring an exterior urban alley.

The alley is an unsafe and dirty environment, exposed on both sides. The cold concrete is saturated with dirt, grime and oil. The exterior scene contains a large cardboard box capable of housing a human being. The front of the box was intentionally left open to provide a glimpse inside, however the angled placement invites one to interpret whether or not someone is inside. The placement of footprints on the bottom flap adds to the overall intrigue of the scene.

The cardboard box was constructed from six flat cardboard sheets. Upon completion, the box was placed outside for several days, exposed to the elements such as rain and temperature fluctuation. A mixture of water and coffee grounds were rubbed onto the cardboard to create an appropriate worn patina to the box.

The auditory sounds of the exterior scene are loud, urban traffic, sirens and dense crowds. The unsettling roar and uncomfortable variation of tonality coming from the surrounding environment reinforce feelings of perilousness and potential danger. The olfactory components of the exterior scene combine diesel, fumes, concrete and electricity notes that in combination, work to form an urban city environment.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Food scene featuring fresh baked artisan bread.

Following the shelter experience, the observer is exposed to the second basic human need of food. A wood textures animates onscreen acting as a transition into the next scene. The initial image of food is fresh baked artisan bread placed on an elegant dining table. Breaking bread with friends and family is often symbolic of togetherness, community and sharing. There is comfort associated with the sense of togetherness, which is reinforced with auditory sounds of laughter and a party environment.

The actual audio was composed of my own family and was recorded during several family get-togethers. The olfactory components combined the essence of freshly-baked bread, dough and crust notes that remind the observer of a safe and familiar place such as a bakery, restaurant or grandmother's kitchen.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Food scene featuring spoiled bread.

A subtle drift in the camera slowly places the artisan bread away from the observer and symbolically out of reach. During the drift, a statistic states “1 in 6 Americans do not have access to enough food.” Over time the artisan bread slowly transitions into spoiled moldy bread. During the transition, more statistics are revealed such as “Food Waste generates 34 million tons each year in America,” and “15% Reduction in food waste would be enough to feed 25 million Americans annually.” Food waste is an unfortunate reality that many Americans relate too.

The auditory sounds of the spoiled food scene are quiet and muted reinforcing a notion of solitude and loneliness. The olfactory components of the spoiled food capture the pungent spoiled bread, mold and acetone notes that place the observer in the environment.

Creating the smell of bread mold was an interesting challenge. It required the purchase of fresh artisan bread with no preservatives. The fresh artisan bread was photographed and then prepared for the experiment. A cotton swab was utilized to collect dust and dirt from the various walls and shelves. The dust was distributed evenly on the surface of the bread along with several ounces of water. A paper cylinder was constructed around the bread and placed inside a large garbage bag as depicted in the photograph on the following page. The bag was then sealed and left alone for ten days. The result was a healthy portion of bread mold in an assortment of colors and a pungent odor.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration  
Thesis Documentation

### Motion Graphics



**Photograph:** Bread mold experiment.



**Photograph:** Bread mold growth after a period of ten days.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Clothing scene featuring a closet full of clean shirts.

Following the food experience the observer experiences the third basic human need of clothing. The wood table texture animates offscreen acting as a transition into the next scene. Images of clean, freshly-laundered and starched shirts fill the screen. Six hanging shirts create a sense of abundance and the ability to choose from several choices instead of only having one.

The auditory sounds utilized in this scene was a steady stream of white noise and the scents that emanated throughout the installation were fresh and airy, combining fabric, cotton, laundry and linen notes to convey a clean and cared for wardrobe.

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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

### Thesis Documentation

#### Motion Graphics



**Storyboard:** Clothing scene featuring a single dirty and worn shirt.

As the six shirts slowly fade away the camera rests at the base of the closet. At the base of the closet is a single, dirty and worn shirt. The single shirt represents insufficiency in clothing and a lack of choice in what to wear. Next to the shirt is a statistic that states “1 in 7 Americans do not have a choice in what they wear.” The single shirt represents the one in seven Americans who have no choice, while the six shirts represent the six in seven Americans who have a choice in what they wear.

The scene is purposely silent and again reinforces the notion of solitude and loneliness. Fabric, human body odor and sweat notes surround the observer allowing them to experience the degradation and humiliation of having no choice but to wear a dirty shirt.

The closing sequence of the motion graphics served to open a dialogue amongst observers and provide credits. The same photographic textures, typography placement and animations of the opening sequence were utilized to maintain consistency and act as bookends. Bookend is a term for creating a consistency in style, type treatment and animation during the opening and closing sequences and in motion graphics provides a seamless transition from beginning to end, especially when looping.

For multi-sensory integration to be effective, the visuals, audio and fragrances must be congruous and complement each other in a way that effectively stimulates human comprehension. The intention of the motion graphics installation was to expose observers to compelling visuals and powerful messaging while simultaneously integrating scent, ultimately creating a link in time that resides with the observer. The hope is that the next time they smell freshly-baked bread or clean laundered shirts, subconsciously they will be transported back into that moment, remember Perception of Poverty and foster a desire to make changes that improve the lives of the less fortunate.

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Documentation**

#### **Conclusion**

Perception of Poverty's objective needed to be specific and profound to be effective. Integrating olfactory components with auditory sounds and visuals provided the opportunity to further enhance the observers experience by heightening the emotional tone and strengthening memory association. Specifically focusing on the great recession and homelessness contributed to an in-depth study of the subject, rather than a generalization.

Poverty is a notable cause; however it is only one of many social issues that have a profound effect on society. Censorship, child labor, civil rights, discrimination, drug abuse, environmental protection, gender inequality, hunger, human rights, illiteracy, obesity, slavery, torture and violence are all issues that may be solved through human-centered design.

The creative process, design and resources of Perception of Poverty will hopefully act as a model for future designers. My hope is that Perception of Poverty will inspire designers to utilize design to actively raise awareness on complex social issues, inspire individuals to take action and effect change in disadvantaged communities by creating strong associations with human emotion that ignite a passionate drive to facilitate change.



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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Thesis Proposal**

**Daniel R. Skrok**

MFA Candidate

Computer Graphics Design, MFA Program

School of Design

College of Imaging Arts & Sciences

Rochester Institute of Technology

09 November 2011

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Thesis Proposal**

Rochester Institute of Technology  
College of Imaging Arts & Sciences  
School of Design  
Computer Graphics Design

**Title**

Perception of Poverty:  
Promoting Social Responsibility through Multi-Sensory Integration

**Submitted by**

Daniel R. Skrok

**Date**

09 November 2011

**Committee Approval**

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Chief Advisor  
Daniel DeLuna, Associate Professor  
School of Design  
College of Imaging Arts & Sciences

Date

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Associate Advisor  
Shaun Foster, Assistant Professor  
School of Design  
College of Imaging Arts & Sciences

Date

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Associate Advisor  
Loret Steinberg, Associate Professor  
School of Photographic Arts & Sciences  
College of Imaging Arts & Sciences

Date

Your signature on this page indicates your commitment to working with this student in their effort to complete this thesis project for the time period indicated on the timeline.

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

**Thesis Proposal:** Table of Contents

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Proposal: Abstract

#### Abstract

Traditional graphic design and marketing rely heavily on visual forms of communication. With advertisements all around us, the constant visual bombardment has led to an over stimulated consumer, creating a challenge for designers to invent alternative ways to capture the audience's attention. Multi-sensory integration overcomes this challenge in my opinion, by integrating more than the sense of sight and is more effective and memorable, because it conveys the core message through multiple senses rather than one. The integration of additional senses within the field, particularly olfactory in my opinion, helps to enhance the overall communication and facilitate a more potent user experience.

According to National Bureau of Economic Research, the United States suffered a significant decline in economic activity resulting in the great recession, which lasted from December 2007 to June 2009. Following the recession, many United States citizens still faced unforeseen financial crisis, sudden loss of income and housing foreclosure. The impact of the recession continues today, causing suffering and severe crisis. As a result of this, many families and individuals continued to find themselves newly poor.

According to the National Alliance to End Homelessness, currently in the United States there are 643,067 people experiencing homelessness on any given night; roughly 22 of every 10,000 people are homeless. Of that number, 238,110 are people in families and 404,957 are individuals, 17% of the homeless population are considered chronically homeless and 12% of the homeless population are made up of veterans.

The objective of this thesis is to show how utilizing multi-sensory integration to raise awareness of poverty in the United States is effective and to explore the effects of the great recession by allowing observers to digitally experience homelessness. The intention is to give observers a new appreciation of life, inspire individuals to take action and stimulate change within their community.

#### Keywords

Computer Graphics Design  
Design  
Homeless  
Human-Centered Design  
Human Needs  
Installation  
Motion Graphics Design  
Multi-Sensory Integration  
New Poverty  
Olfaction  
Perception  
Poverty  
Recession  
Scent Integration  
Social Responsibility



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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Thesis Proposal: Problem Statement**

#### **Problem Statement**

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#### **Selected Key Questions**

1. How does scent integration effect observer response?
2. What does it feel like to have a sudden financial crisis or loss of income?
3. What is the scent of poverty, fear and uncertainty?
4. What are the social and ethical responsibilities of a designer?
5. How may a designer motivate change through computer graphics design?

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

**Thesis Proposal:** Survey of Literature

#### **Scent Creation**

##### **Air Aroma**

[www.air-aroma.com](http://www.air-aroma.com)

With more than 12 years of experience Air Aroma has been helping companies implement scent as part of their overall branding strategy. Air Aroma does this with their purely natural fragrances, beautifully designed scent diffusers backed by an unbeatable global distribution network (Roemburg).

##### **Prolitec**

[www.prolitec.com](http://www.prolitec.com)

Prolitec is a world leader in the development and deployment of innovative technologies and solutions for aerobiology and indoor air quality. Current applications include wide-area odor remediation, ambient scenting, rest room hygiene, product advertising, and aromatherapy and performance. Politics' advanced air treatment systems combine state-of-the-art chemistry with proprietary computer-controlled delivery systems to provide clients unprecedented flexibility in enhancing indoor air quality ("Company Description").

##### **ScentAir**

[www.scentair.com](http://www.scentair.com)

In a nutshell, Scent Marketing is enhancing a brand image through aroma. Scent Marketing is how businesses are breaking through the mundane and overused marketing gimmicks to reach customers emotionally. It's finally being innovative enough to involve the strongest of the five human senses in a marketing campaign. It's the art of incorporating smell into the business of marketing and branding ("Scent Marketing Overview").

##### **ScentAndrea Multi-Sensory Communications**

[www.scentandrea.com](http://www.scentandrea.com)

ScentAndrea founder, Carmine Santandrea has worked with more than half of the Fortune 500 companies, creating and producing award winning TV commercials, events, exhibits and corporate films, taking the top prize in all events. His special events savvy, patents and award-winning work gained him access to governments and corporate America at the highest levels. He is considered to be a leading authority on corporate culture; is well published and lectures frequently.

ScentAndrea's Aroma Vision is a TV promotions product that utilizes scent, along with a display of the product to greet customers as they enter Grocery stores. High-speed Internet connectivity is utilized to virtually deliver your message and sales data, so you can see the results of testing and track performance (Santandrea).

ScentAndrea's Scent-A-Vision, is a stand-alone system that works with any movie or DVD to breathe new life into the movie going experience. Hundreds of movies are available (Santandrea).

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

**Thesis Proposal:** Survey of Literature

#### **Scent Marketing**

##### **Scent Marketing Institute**

[www.scentmarketing.org](http://www.scentmarketing.org)

The Scent Marketing Institute is the leading authority on scent and sensory marketing in the world. SMI provides information, education and support to scent solution providers and manufacturers, brand owners, marketing agencies and the press about the effects and benefits of scent and sensory marketing (Brumfield et al. 198).

##### **Scent Marketing Digest**

[www.scentmarketingdigest.com](http://www.scentmarketingdigest.com)

The essential blog for Scent Marketing resources, industry experts, scent developers and scent solution providers.

##### **Sense of Smell Institute**

[www.senseofsmell.org](http://www.senseofsmell.org)

The Sense of Smell Institute is the research and education division of The Fragrance Foundation, the non-profit, educational arm of the global fragrance industry. SSI provides a one-stop resource for timely and accurate information on the sense of smell and its importance to human psychology, behavior and quality of life—a great place for scientific researchers, teachers, students, journalists and the general public.

##### **Scent Branding & Application**

Bloom Grocery

[www.shopbloom.com](http://www.shopbloom.com)

It's not just the picture of beef on a new billboard in North Carolina that tries to catch drivers' attention; it's the aroma coming from the sign. The billboard on N.C. 150 in central North Carolina emits the smell of black pepper and charcoal to promote a new line of beef available at the Bloom grocery chain. Bloom is part of the Salisbury, N.C.-based Food Lion chain. The billboard shows a fork piercing a piece of meat ("Steak Scented Billboard").

A Bloom spokeswoman says the billboard will emit scents from 7 a.m. to 10 a.m. and 4 p.m. to 7 p.m. every day until June 18. A high-powered fan at the bottom of the billboard spreads the aroma by blowing air over cartridges loaded with fragrance oil (Bishop).

##### **Ford Motor**

[www.ford.com](http://www.ford.com)

Like every marketer Ford Motor spends a lot of time making sure its lineup of cars and trucks evokes the brand—in design, handling and advertising. Now the company is on a mission to identify that certain scent that will become part of Ford's brand around the world. The company wants every car it makes to look, feel and even smell like a Ford.

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

**Thesis Proposal:** Survey of Literature

#### **Scent Marketing**

##### **M&M World**

[www.mymms.com](http://www.mymms.com)

M&M's is one of the more visible companies utilizing scent marketing to lure customers. M&M's World in Times Square emits the scent of chocolate onto the busy streets to entice people into the store.

##### **Smell-O-Vision**

[www.wired.com/table\\_of\\_malcontents/2006/12/a\\_brief\\_history](http://www.wired.com/table_of_malcontents/2006/12/a_brief_history)

Smell-O-Vision was a technique created by Hans Laube. First appeared in 1960 for the film Scent of Mystery. Smell-O-Vision was unsuccessful because aromas were released with a distracting hissing sound. Also the smell was delayed and did not release until several seconds after the action was shown on-screen (Brownlee).

##### **Smell-O-Vision: UCSD Research**

[video.cnbc.com/gallery/?video=3000028707](http://video.cnbc.com/gallery/?video=3000028707)

The idea behind the two-year project was brought to researchers at the University of California, San Diego's Jacobs School of Engineering by the Samsung Advanced Institute of Technology (SAIT) in Korea. SAIT needed assistance in developing a practical means of delivering odors to viewers that match a scene on a TV screen.

#### **Social Charities & Foundations**

##### **Homelessness Research Institute**

[www.endhomelessness.org](http://www.endhomelessness.org)

The Homelessness Research Institute, the research and education arm of the Alliance builds and disseminates knowledge that informs policy change. The goals of the Homelessness Research Institute are to build the intellectual capital around solutions to homelessness; to advance data and research so that policy makers, practitioners, and the caring public have the best information about trends in homelessness and emerging solutions; and to engage the media to ensure intelligent reporting on the issue ("Snapshot of Homelessness").

##### **National Alliance to End Homelessness**

[www.endhomelessness.org](http://www.endhomelessness.org)

The National Alliance to End Homelessness is a leading voice on the issue of homelessness. The Alliance analyzes policy and develops pragmatic, cost-effective policy solutions. The Alliance works collaboratively with the public, private, and nonprofit sectors to build state and local capacity, leading to stronger programs and policies that help communities achieve their goal of ending homelessness. We provide data and research to policy makers and elected officials in order to inform policy debates and educate the public and opinion leaders nationwide ("Snapshot of Homelessness").



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

**Thesis Proposal:** Survey of Literature

#### Social Charities & Foundations

##### **National Coalition for the Homeless**

[www.nationalhomeless.org](http://www.nationalhomeless.org)

The National Coalition for the Homeless is a national network of people who are currently experiencing or who have experienced homelessness. The NCH consists of activists, advocates, community-based and faith-based service providers and those committed to a single mission, to end homelessness.

NCH is committed to creating the systemic and attitudinal changes necessary to prevent and end homelessness. NCH engages in public education, policy advocacy and grassroots organization. NCH focuses its attention in the following 4 areas: housing justice, economic justice, health care justice, and civil rights.

#### Social Design

##### **Aashray Adhikar Abhiyan:** Question Mark

[www.homelesspeople.in](http://www.homelesspeople.in)

Aashray Adhikar Abhiyan shelter rights campaign is a citizen's initiative to address the problems of the homeless in Delhi. The people of Delhi currently sleep on pavements, rickshaws, thela's (two wheel handcarts), fly overs, under the bridges and in parks.

##### **Alex Seo Crisis Campaign**

[www.trendhunter.com/trends/alex-seo-crisis-campaign](http://www.trendhunter.com/trends/alex-seo-crisis-campaign)

In a grim depiction of the realities of homelessness, the Alex Seo Crisis campaign drew chalk outlines of bodies on streets and walls in major cities around the world. These eye-catching images were coupled with facts regarding homelessness relevant to each urban center, to provoke discussion, awareness and action. The unusual and arresting visual drew the eyes of even the busiest of commuters in a way that traditional advertising could not have hoped for (Scott).

##### **Amnesty International:** Not Here But Now

[walker.ag/?s=amnesty+international&lang=en#1107](http://walker.ag/?s=amnesty+international&lang=en#1107)

The campaign "It's not happening here, But it's happening now" shows how human rights violations take place every day, just a few hours flying time away from us. The aim was to sensitize people in Switzerland about the issues of human rights and to stimulate debate. The poster campaign brought the truths about human rights violations around the world directly to the front doors of Swiss households. Two hundred posters, individually matched to fit their environment, appeared to show the collision of two worlds. For example, we see brutal scenes out of Guantanamo abruptly taking place in the middle of Zurich.

##### **FEED SA**

[www.feedsa.co.za](http://www.feedsa.co.za)

FEED SA is a non-profit organization, whose mission is to establish feeding programs within the townships for all those who receive no other forms of funding whatsoever, and for the children who go to school on an empty stomach.

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## **Perception of Poverty:**

### Promoting Social Responsibility through Multi-Sensory Integration

**Thesis Proposal:** Survey of Literature

#### **Social Design**

##### **Homeless for One Week:** Yusef Ramelize

[www.homelessforoneweek.com](http://www.homelessforoneweek.com)

Yusef Ramelize is a designer based out of New York City, who goes homeless for one week and walks in the shoes of the homeless in order to raise funds for charity. Ramelize feels that “so many of us take for granted having shelter; and having that shelter be clean, stable and absolute. But for many of our fellow New Yorkers, and for people all around the world, that basic right to shelter is not a reality.” One hundred percent of the funds raised by Homeless For One Week go directly to a nonprofit charity.

##### **neunerHAUS**

[www.neunerhaus.at](http://www.neunerhaus.at)

Verein NeunerHAUS was created by Robert Wohlgemuth, Florian Nussbaumer, Phil Hewson and Robert Staudinger at Euro RSCG in Vienna, Austria (Top et al. 168). The NeunerHAUS campaign was designed to raise awareness of homelessness.

The NeunerHAUS campaign was a series of print ads. The print ads featured realistic photography of urban environments. Beneath the photographs dark tonality and grunge textures, was a homeless person. The homeless were intentionally photographed to blend with their environments. Each print ad stated “Get people from the street before they become a part of it.”

##### **Street Reach**

[www.helpstreetreach.com](http://www.helpstreetreach.com)

Street Reach was created by Jeff Thompson at T2H Advertising in Myrtle Beach, South Carolina (Top et al. 160). The Street Reach campaign was designed to build awareness of homelessness and increase donations for Street Reach Mission. Street Reach Mission is a nonprofit organization with a ninety-bed facility, which provides emergency shelter and supportive services in the Myrtle Beach area (Top et al. 160).

The Street Reach campaign featured billboards, print ads and a website. The campaign utilized photography of families and individuals, each experiencing both homelessness and prosperity in the same photograph. A compelling question stated “If it were you, would you help?”

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

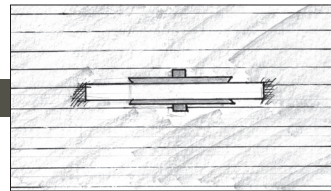
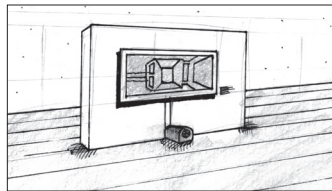
#### Thesis Proposal: Design Ideation

A motion graphics installation will utilize multi-sensory integration to raise awareness of poverty in the United States and explore the effects of the great recession by allowing observers to digitally experience homelessness. After sight, scent is the most significant of our five senses, followed by sound, taste and touch (Lindström, "Brand Sense" 69). The intention is to give observers a new appreciation of life, inspire individuals to take action and stimulate change within their community.

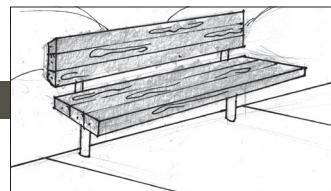
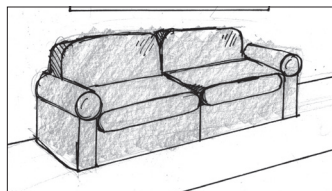
Observers will experience the contrast of the three basic human needs of shelter, food and clothing. An example is the exploration of shelter. The visual depiction may contrast a safe, indoor environment versus a dangerous, outdoor environment. The auditory sounds may contrast a quiet, serene environment versus an loud, urban environment. The olfactory components may contrast a fresh, clean environment versus a dirty, urban environment.

The location of the installation will focus in areas that are atypical for homelessness. Homelessness is typically associated with urban environments therefore an area such as a shopping mall, college campus, suburban or gated community will be targeted.

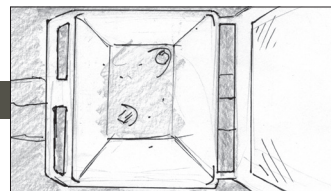
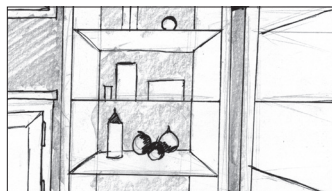
#### Sketches



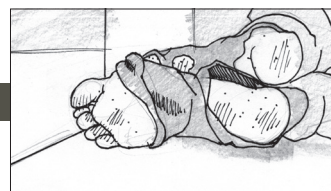
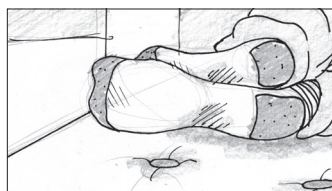
**Installation**  
Setup



**Shelter**  
Indoor versus Outdoor



**Food**  
Fresh versus Spoiled



**Clothing**  
Clean versus Dirty

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## **Perception of Poverty:**

### Promoting Social Responsibility through Multi-Sensory Integration

#### **Thesis Proposal:** Methodological Design

Motion graphics will be presented in the form of an installation, which utilizes multi-sensory integration of sight, sound and scent to raise awareness of poverty in the United States and explore the effects of the great recession by allowing observers to digitally experience homelessness. Observers will experience the contrast of the three basic human needs of shelter, food and clothing. The intention of the installation is to give observers a new appreciation of life, inspire individuals to take action and stimulate change within their community.

The target audience will focus on males and females, of any age. The primary target are those whom are predominantly unaffected by the recession.

Software utilized for the thesis will consist of Adobe® Acrobat Professional®, After Effects®, Audition®, Illustrator®, InDesign®, Photoshop®, AutoDesk® Maya® and Dataton WatchOut™. Hardware will consist of an LED television and/or projector, sound system, scent emission device and fragrance(s).

The motion graphics will be 60-seconds in length and displayed on a continuous loop. The location of the installation will focus in areas that are atypical for homelessness. Homelessness is typically associated with urban environments therefore an area such as a shopping mall, college campus, suburban or gated community will be targeted.

Scent emission is heavily dependent on location. Factors such as square footage, windows, doors and ventilation systems all have an effect on the emission of scents and the impact on the observer. Upon choosing a location an appropriate scent emission device will be selected.



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## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

**Thesis Proposal:** Implementation Strategies

<b>Format</b>	Motion Graphics Installation
<b>Duration</b>	60-Seconds
<b>Software</b>	Adobe® Acrobat Professional®, After Effects®, Audition®, Illustrator®, InDesign®, Photoshop®, AutoDesk® Maya® and Dataton WatchOut™
<b>Deliverables</b>	<ul style="list-style-type: none"><li>Concept &amp; Create identity<ul style="list-style-type: none"><li>Develop Look &amp; Feel</li><li>Select Appropriate Color Scheme, Typeface &amp; Photographic Style</li></ul></li><li>Develop Storyboards</li><li>Gather Assets<ul style="list-style-type: none"><li>Shoot Photography</li><li>Shoot Video (if applicable)</li><li>Record Audio</li><li>Select Fragrance(s)</li></ul></li><li>Develop Animatic</li><li>Attend ScentWorld Expo (budget permitting)</li><li>Volunteer<ul style="list-style-type: none"><li>Donate Time at Local Shelter(s) &amp; Soup Kitchen(s)</li></ul></li><li>Select Location<ul style="list-style-type: none"><li>Acquire Appropriate Permission for Space(s)</li></ul></li><li>Gather Hardware<ul style="list-style-type: none"><li>Purchase/Rent Scent Emission Device (location dependant)</li><li>Purchase/Rent LED Television(s)</li><li>Purchase/Rent Projector(s)</li><li>Purchase/Rent Sound System (if applicable)</li></ul></li><li>Test Scent Emission Device<ul style="list-style-type: none"><li>Hone Emission Timing</li><li>Enable/Disable Motion Sensor</li><li>Select Appropriate Intensity</li></ul></li><li>Develop Final Animation</li></ul>

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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

**Thesis Proposal:** Dissemination

This thesis will be exhibited in the RIT University gallery as partial fulfillment of the MFA. The School of Design and Wallace Library Archives will keep it on file for future research.

The thesis will take the form of an article that will be submitted for publication to magazines such as Communication Arts, HOW, Print and Wired magazines.

The thesis defense will be reformatted as a presentation for conferences such as Imagine RIT, ScentWorld Expo and TedX.

The thesis will be submitted to competitions such as AIGA (Re)designAwards, American Advertising Federation ADDY Awards, Communication Arts Advertising Competition, HOW Magazines Interactive Design Awards and Print Magazines Print in Motion.

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## **Perception of Poverty:**

### Promoting Social Responsibility through Multi-Sensory Integration

#### **Thesis Proposal:** Evaluation Plan

A questionnaire will be integrated into the final installation. Observers who experience the thesis installation will be asked a series of questions to determine the effectiveness and resonance.

The intended outcome of the questionnaire will hopefully decide whether the integration of scent is more or less effective for communication. Qualitative and Quantitative data will be collected from the questionnaire.

Following the completion of the thesis and defense, a test focus group study will be implemented. Two groups will be exposed to the thesis installation, one with sight and sound and the other with scent, sight and sound. The intended outcome of the focus group is to substantiate the effectiveness of scent integration in regards to communication.

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## **Perception of Poverty:**

### Promoting Social Responsibility through Multi-Sensory Integration

#### **Thesis Proposal:** Pragmatic Considerations

Budget may be a hindrance to this project. In order to compensate, equipment expenses for LED television and/or projector will be rented. Scent emission device and fragrances will be purchased, however I will attempt to negotiate a reduced rate by leveraging my student status as well as offering credit for products utilized in the thesis.

Additional budget may include conference and travel for ScentWorld Expo in Miami and phone costs for interviewing purposes, however interviews may be conducted utilizing GoToMeeting or Skype to eliminate unnecessary travel expenses.



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Proposal: Timeline

#### Milestones

Documentation	Fall Week 1 – Spring Week 10
Survey of Literature	Fall Week 2 – Fall Week 9
Thesis Proposal	Fall Week 10
Committee Meeting(s)	Biweekly
Concept & Create identity	Winter Week 1 – Winter Week 3
Develop Logo	Winter Week 1
Develop Look & Feel	Winter Week 2
Select Appropriate Style	Winter Week 3
Develop Storyboards	Winter Week 3 – Winter Week 4
Gather Assets	Winter Week 5 – Winter Week 7
Shoot Photography	Winter Week 5
Shoot Video	Winter Week 5
Record Audio	Winter Week 6
Select Fragrance(s)	Winter Week 7
Develop Animatic	Winter Week 8 – Winter Week 9
Attend ScentWorld Expo	Winter Week 2
Volunteer	To Be Determined
Volunteer at Local Shelter(s) & Soup Kitchen(s)	To Be Determined
Select Location	Winter Week 9 – Winter Week 10
Acquire Appropriate Permission for Space(s)	
Gather Hardware	Spring Week 1 – Spring Week 3
Purchase/Rent Scent Emission Device	Spring Week 1
Purchase/Rent LED Television(s)	Spring Week 2
Purchase/Rent Projector(s)	Spring Week 2
Purchase/Rent Sound System	Spring Week 3
Test Scent Emission Device	Spring Week 2 – Spring Week 3
Hone Emission Timing	
Enable/Disable Motion Sensor	
Select Appropriate Intensity	
Develop Final Animation	Spring Week 4 – Spring Week 7
Installation	Spring Week 8 – Spring Week 9
Thesis Defense	Spring Week 10
Thesis Presentation	Spring Week 10

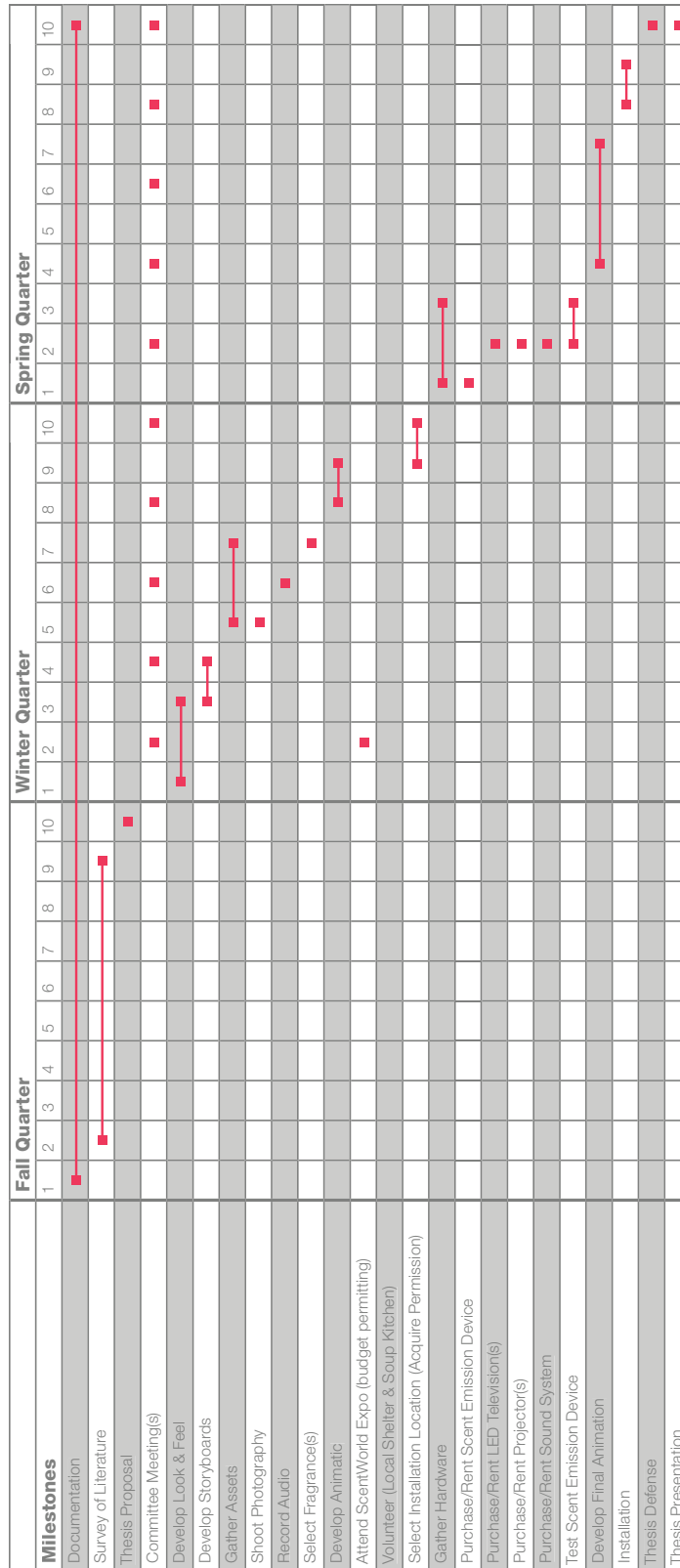
Note: Schedule is subject to change.

## Perception of Poverty:

Promoting Social Responsibility through Multi-Sensory Integration

Thesis Proposal: Timeline

### Timeline



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

#### Thesis Proposal: References

#### References

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

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#### Survey 01

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**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☐ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☐ Male ☒ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☒ 55-64 ☐ 65+

10 **Comments:**  
Wonderful  
very motivating  
Well Done

---

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 02

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☐ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☐ Male ☒ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☒ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.



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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

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#### Survey 03

---

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☐ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☐ Male ☒ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☒ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 04

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☐ Yes ☒ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☐ Emotional ☐ Informative ☐ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input checked="" type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☒ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 05

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☐ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☒ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
VERY INFORMATIVE  
\_\_\_\_\_  
CLEAR  
\_\_\_\_\_  
EFFECTIVE  
\_\_\_\_\_  
NEW  
\_\_\_\_\_

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 06

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other \_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☐ Male ☒ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☒ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
Well designed project a great way to bring  
awareness to poverty & homelessness.  
Adding the smells really helped get  
the message across.

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 07

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other \_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☐ Male ☒ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☒ 55-64 ☐ 65+

10 **Comments:** *Very inspirational, impressive, and you can see a lot of effort & hard work was put into the project.*

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**Survey:** Perception of Poverty installation questionnaire.



## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 08

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☐ Yes ☒ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☐ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other \_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input checked="" type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input checked="" type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☒ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
*presentation needs to be worked on. Issue with actual hand scents integrating. Need to design exhaust system to cycle smells. beautiful message. My question: has this process inspired you to continually be active in finding a solution?*

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 09

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☐ Yes ☐ No *I wouldn't say "enhance"*

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☐ Yes ☒ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☒ Creative ☒ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☒ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 10

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**Perception of Poverty:**  
Survey

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01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☒ Yes ☐ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☒ Yes ☐ No

06 **How would you describe the project?** (Check all that apply)  
☐ Creative ☐ Emotional ☒ Informative ☐ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☒ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

10 **Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**Survey:** Perception of Poverty installation questionnaire.

## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration Surveys

#### Survey 11

**Perception of Poverty:**  
Survey

01 **Did the project raise your awareness of poverty in the United States?**  
☒ Yes ☐ No

02 **Did the integration of scent enhance your overall experience?**  
☒ Yes ☐ No

03 **Are the visuals, sounds and scents congruous? In other words, did they match?**  
☒ Yes ☐ No

04 **Did the project inspire you to take action, donate or get involved in your community?**  
☐ Yes ☒ No

05 **Did the project provide you with a new appreciation or outlook on life?**  
☐ Yes ☒ No

06 **How would you describe the project? (Check all that apply)**  
☒ Creative ☐ Emotional ☒ Informative ☒ Memorable ☐ Boring ☐ Other\_\_\_\_\_

07 **Please rate the project based on the following attributes:**

Design (Aesthetic)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Visual (Photo, Video)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Auditory (Sound, Music)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Olfactory (Scent)	<input checked="" type="checkbox"/> Very Strong	<input type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak
Message (Content)	<input type="checkbox"/> Very Strong	<input checked="" type="checkbox"/> Strong	<input type="checkbox"/> Neutral	<input type="checkbox"/> Weak	<input type="checkbox"/> Very Weak

08 **Gender:**  
☒ Male ☐ Female ☐ Prefer not to answer

09 **Age:**  
☐ 15-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☒ 55-64 ☐ 65+

10 **Comments:** ood job Dpn!

Thank you for completing this survey, your time is appreciated.

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**Survey:** Perception of Poverty installation questionnaire.

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## **Perception of Poverty:**

### Promoting Social Responsibility through Multi-Sensory Integration

#### **Resources**

#### **DreamAir LLC**

DreamAir is a privately owned company based in New York City, with a satellite laboratory in Berlin-Germany. DreamAir is headed by Master Perfumer and President Christophe Laudamiel. DreamAir's goal is to introduce new means of communication via scent, which involves creative fragrance customization, new fragrant applications and technologies.

DreamAir designs custom solutions for unique sensations in the retail, hospitality, travel, entertainment industries as well as movie theaters, opera houses, clubs and even for the skin. DreamAir's access to exclusive and unusual ingredients, new fragrance technologies, unique industry relationships and collaboration with the best fragrance labs in the world, all contribute to their goal of developing new world-class scent solutions.

#### **Address**

DreamAir LLC  
210 Eleventh Avenue, Suite 1002  
New York, NY 10001  
USA

#### **Phone**

+1 646 218 4100

#### **Email**

info@dreamair.mobi

#### **Website**

dreamair.mobi



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## **Perception of Poverty:**

Promoting Social Responsibility through Multi-Sensory Integration

### **Resources**

#### **Exhalia**

Exhalia was founded in 2004 in Saint-Malo, France and expanded to Osaka, Japan in 2005. Exhalia is headed by Founder, President and Engineer Yvan Régeard. Exhalia's vision is that smell will become multimedia's third sense, adding new perspectives that have not been exploited until now.

Exhalia provides custom-made, intuitive solutions that allow smell to be integrated into multimedia sources such as internet, CD-ROM, interactive terminals, audiovisuals and games. With proven technology, Exhalia provides custom solutions for the cosmetic perfumery, agro-foods, museography and educational industries.

#### **Address**

Exhalia  
13 rue des Artisans  
35780 La Richardais  
France

#### **Phone**

+33 (0)2 99 19 59 59

#### **Website**

[exhalia.com](http://exhalia.com)

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## **Perception of Poverty:**

### **Promoting Social Responsibility through Multi-Sensory Integration**

#### **Resources**

#### **Scent Marketing Institute**

Scent Marketing Institute is a global not-for-profit organization for marketers, fragrance houses and educators in the scent and sensory fields. SMI is also the oldest scent marketing organizations. SMI's mission is to support the scent marketing industry, provide education, research and serve as a unified voice of the scent community.

The Scent Marketing Institute is responsible for the annual ScentWorld Expo. ScentWorld is the preeminent and largest scent and sensory marketing conference in the world. The expo features intriguing lectures, presentations, market research, innovative technology and the latest scent trends.

#### **Address**

Scent Marketing Institute  
7 Fox Meadow Road  
Scarsdale, NY 10583  
USA

#### **Phone**

+1 646 236 4606

#### **Email**

info@scentmarketing.org

#### **Website**

scentmarketing.org

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## Perception of Poverty:

### Promoting Social Responsibility through Multi-Sensory Integration

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